

ANNUAL REPORT

ON THE

HEALTH

OF THE

CITY OF SHEFFIELD

FOR THE YEAR 1902.

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Medical Officer of Health.

City of Sheffield.

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NOVEMBER, 1902.

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TOWN HALL,
SHEFFIELD,

July 16th, 1903.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE,
CORPORATION OF SHEFFIELD.

GENTLEMEN,

I have the honour to present to you the Annual Report on questions relating to the Health of the City of Sheffield for the year ending December 31st, 1902, in compliance with the order of the Local Government Board.

Several circumstances make the year 1902 a record one from the point of view of its Health statistics. The mortality rate was 16·9 per 1000 of the population. This is probably the lowest death-rate which has occurred in Sheffield since it emerged in the distant past from the position of being a small village.

Several circumstances have combined along with the general lowering of the death-rate due to improved sanitation, to bring about this result. The chief of these has been the favourable meteorological conditions which were maintained during the whole year. Notwithstanding the fact that in the previous year (1901) the death-rate was a low one for Sheffield, the rate for 1902 represents no less than **976** fewer deaths than in 1901.

The saving of life has mainly occurred among young children, who, on account of the cooler summer, did not suffer so severely from Epidemic Diarrhœa. The Infant mortality-rate was 150, as compared with an average of 187 in the preceding ten years.

Another pleasing feature of the Health Statistics for 1902 is the reduction in the number of cases of sickness from Typhoid Fever.

The large amount of care and attention on the part of the City Council which has been directed to bettering the sanitary conditions of Sheffield during the past 10 or 12 years is undoubtedly now making itself apparent in the improved statistics which this Report deals with in greater detail. It is probable that during the next decade even more striking results will be indicated.

While it is a pleasing duty to be able to record less sickness and fewer deaths in the City, it must be obvious that the whole of the improvement which is recorded during 1902 is not due to sanitary betterment, but that much of it is due to accidental circumstances, such as the favourable meteorological conditions above mentioned.

I have, again, to report that any success which has attended my efforts in the prevention of disease is very largely due to the loyal and painstaking work of the members of my Staff. They have displayed great energy and keenness in their work during the year.

I am, Gentlemen,

Your obedient Servant,

JOHN ROBERTSON,

MEDICAL OFFICER OF HEALTH.

SUMMARY OF VITAL AND MORTAL STATISTICS, ETC., FOR 1902.

AREA OF CITY	....	....	....	..	....	23,662 Acres, divided into TEN Registration Sub- Districts.
POPULATION	....	....	....	....	....	418,765.
DENSITY	....	....	....	....	....	17·7 Persons per Acre.
INHABITED HOUSES	....	....	....	....	....	Census of 1901, 85,507 with 4,456 uninhabited, and 1217 building.
HOUSES CERTIFIED AS FIT FOR HUMAN HABITATION, APRIL, 1891, TO JUNE 30th, 1902...	....	....	....	....	....	16,647
NUMBER OF NEW DWELLING-HOUSES CER- TIFIED AS FIT FOR OCCUPATION DURING THE YEAR	....	....	....	....	....	1,977
MARRIAGES	....	....	....	....	....	3,682
BIRTHS	....	....	....	....	....	13,938; Birth-rate, 33·3
DEATHS	....	..	....	....	....	7,064; Death-rate, 16·9
INFANTILE MORTALITY	....	..	....	..	....	2,081 under 1 year, or 150 per 1,000 Births.
ZYMOTIC DEATH - RATE (7 PRINCIPAL ZYMOTICS)	....	....	....	..	...	1·77
ESTIMATED INCREASE OF POPULATION	....					7,774 but the natural increase, <i>i.e.</i> , excess of Births over Deaths, was 6,874.

REPORT.

POPULATION.

The population of Sheffield is estimated locally to have been on June 30th, 1902, 418,765 persons, or 208,668 males and 210,097 females.

The Registrar-General calculates it to have been 418,177 persons.

The small discrepancy between these estimates is probably due to the necessity on the part of the Registrar-General for adjusting the estimates for certain districts so that the sum of the populations for districts might accurately correspond with the annual estimate for the whole of England.

In this way the estimated increase in the population of Sheffield during the year was 7,774 persons.

In the following table is set out the population, the estimated increase, the natural increase (*i.e.*, the excess of births over deaths), and the estimated increase due to immigration during each of the past 10 years.

TABLE I.—*Increase of the Population during 10 years, 1893-1902.*

YEAR.	Population.	Estimated Increase.	Natural Increase.	Increase due to Immigration.
1893	336,171	5,355	4,165	1,190
1894	341,612	5,441	5,239	202
1895	347,141	5,529	5,004	525
1896	352,760	5,619	5,121	498
1897	358,470	5,710	4,668	1,042
1898	364,272	5,802	4,853	949
1899	370,168	5,896	4,484	1,412
1900	376,160	5,992	4,280	1,712
*1901	410,991	34,831	4,875	29,956
1902	418,765	7,774	6,874	900

* City extended Oct. 31st.

During the year 1902 a very considerable revision was made in the boundaries of certain of the Registration Sub-Districts. This caused a serious dislocation for a time of the statistical work. The population in each of the districts is shown in Table II. for the old districts for previous years, and for the altered areas for 1902.

TABLE II.—*Showing the Population of each of the Registration Sub-Districts at the Censuses of 1881, 1891, and 1901 ; also the computed Population at the middle of 1902.*

DISTRICT.	Population, 1881.	Population, 1891.	Population, 1901.*	Population, Middle of 1902, in Revised Areas.
Sheffield West.....	14,957	14,105	12,187	..... ..
Do. North ...	38,982	37,499	38,784	38,859 Sheffield North.
Do. South ...	17,919	18,411	17,099	26,162 Do. South (a).
Do. Park	19,948	21,401	22,328	25,323 Do. Park (b).
Brightside	56,719	67,083	77,776	78,653 Brightside.
Attercliffe	26,965	35,883	52,589	54,730 Attercliffe (c).
Nether Hallam ...	38,967	46,328	64,599	67,187 Nether Hallam.
Upper Hallam ...	2,513	2,709	3,657	3,787 Upper Hallam.
Ecclesall	67,538	80,824	97,244	99,291 Ecclesall.
Norton.....	.....	.....	10,828	12,071 Norton.
Hillsboro' .....	.....	.....	11,979	12,702 Hillsboro'.
Totals	284,508	324,243	409,070	418,765 Totals.

* The figures given in these columns are for the City as extended October 31st, 1901.

(a) South District now embraces the old districts of West and South, with the exception of a small portion of about 50 acres, which is included in Park District.

(b) Park District has been extended to include two small portions, 50 acres (roughly) which formerly belonged to South, and 72 acres (roughly) which formerly belonged to Attercliffe, making the district of Park co-extensive with the Municipal Ward.

(c) Attercliffe District has been reduced about 72 acres by the extension of the Park boundary.

In the next Table (III.) is shown the corrected population per acre in each district. This Table is useful as indicating the amount of overcrowding in areas. There are, however, in each of these Registration areas, smaller areas much more densely crowded than any here represented.

TABLE III.—*Showing the Area in Acres, and the Number of Persons per Acre in each of the Registration Sub-Districts.*

DISTRICT.	Area in Acres.	Population, 1901.	Persons per Acre.
Sheffield North	282	38,859	137·8
Do. South	345	26,162	75·8
Do. Park	2,475	25,323	10·2
Brightside	3,685	78,653	21·3
Attercliffe	1,493	54,730	36·7
Nether Hallam	1,533	* 67,187	43·8
Upper Hallam	6,322	3,787	0·6
Ecclesall	4,640	99,291	21·4
Norton	1,902	12,071	6·3
Hillsborough	985	12,702	12·9
Totals	23,662	418,765	17·7

During 1902, the Registrar-General supplied to the Health Department a complete return showing the boundaries of each Enumeration area at the last census. The boundaries of these districts have been mapped out on ordnance sheets and form an invaluable guide when questions of overcrowding on small areas have to be investigated.

In the next Table is set out the Age Distribution of the Population of Sheffield at the Census 1901 and at the middle of 1902. From this Table one ascertains that in 1902 12·4 per cent. of the total Population was under 5 years of age, 21·6 per cent. were from 3 to 12 years (school age), 62·2 per cent. were aged 15 to 54, and 8·3 per cent. were over 55 years of age.

In England and Wales the figures were as follows at the 1901 Census :—11·4 per cent. under 5 years, 21·3 per cent. from 3 to 12 years, 56·8 per cent. 15 to 54 years, and 10·6 per cent. were over 55 years of age.

TABLE IV.—*Age Distribution of the Population in Sheffield.*

					AGE DISTRIBUTION AT CENSUS, 1901.	AGE DISTRIBUTION, MIDDLE OF 1902 (ESTIMATED).
All ages	...	...	...	...	409,070	418,765
Under 1 year	...	...	...	...	11,565	11,838
1 and under 2 years	...	...	...	...	10,280	10,524
2 „ 3 „	...	...	...	...	9,882	10,117
3 „ 4 „	...	...	...	...	9,568	9,795
4 „ 5 „	...	...	...	...	9,557	9,782
All under 5 years	...	...	...	...	50,852	52,056
5 and under 10 years	...	...	...	...	45,227	46,299
10 „ 13 „	...	...	...	...	24,201	24,775
13 „ 14 „	...	...	...	...	7,641	7,823
14 „ 15 „	...	...	...	...	7,951	8,139
15 „ 16 „	...	...	...	...	7,894	8,081
16 „ 17 „	...	...	...	...	8,408	8,607
17 „ 18 „	...	...	...	...	8,155	8,348
18 „ 19 „	...	...	...	...	8,327	8,524
19 „ 20 „	...	...	...	...	8,386	8,585
20 „ 21 „	...	...	...	...	8,403	8,603
21 „ 25 „	...	...	...	...	34,176	34,986
25 „ 30 „	...	...	...	...	38,416	39,333
30 „ 35 „	...	...	...	...	31,853	32,607
35 „ 40 „	...	...	...	...	27,167	27,812
40 „ 45 „	...	...	...	...	22,609	23,148
45 „ 50 „	...	...	...	...	19,517	19,979
50 „ 55 „	...	...	...	...	15,804	16,181
55 „ 60 „	...	...	...	...	12,110	12,397
60 „ 65 „	...	...	...	...	9,279	9,505
65 „ 70 „	...	...	...	...	6,069	6,213
70 „ 75 „	...	...	...	...	3,824	3,896
75 „ 80 „	...	...	...	...	1,887	1,932
80 „ 85 „	...	...	...	...	725	742
85 „ 90 „	...	...	...	...	157	161
90 „ 95 „	...	...	...	...	24	25
95 „ 100 „	...	...	...	...	7	7
100 and upwards	...	...	...	...	1	1

The City is extending very irregularly in the various districts, and as indicating the position of this irregular increase in the various Registration Sub-Districts the Table V. has been included.

TABLE V.—*Showing the Number of New Houses Certified by the City Surveyor as Fit for Human Habitation, from the Census of 1891 to the middle of 1902, in the several Registration Sub-Districts.*

Year.	North.	South.	Park.	Bright-side.	Atter-cliffe.	Nether Hallam.	Upper Hallam.	Ecclesall	Norton.	Hillsbro'	Totals.
1891 (part of) ...	17	14	29	126	116	55	4	175	...	...	536
1892	22	11	32	121	155	170	7	268	...	...	786
1893.....	11	15	42	165	186	198	17	194	...	...	828
1894.....	3	5	36	120	123	153	16	175	...	...	631
1895.....	...	13	20	85	106	141	4	155	...	...	524
1896.....	18	16	68	135	288	221	7	307	...	...	1,060
1897, to June 30	4	5	16	107	186	239	4	159	...	...	720
July, 1897, to June, 1898 ...	7	17	26	179	467	522	13	451	...	...	1,682
July, 1898, to June, 1899 ...	15	18	55	161	746	784	15	686	...	...	2,480
July, 1899, to June, 1900 ...	27	15	57	214	647	914	77	771	...	...	2,722
July, 1900, to June, 1901 ...	12	31	59	213	729	931	102	635	...	...	2,712
July, 1901, to June, 1902 ...	5	23	70	330	419	398	77	457	79	108	1,966
TOTALS	141	183	510	1,956	4,168	4,726	343	4,433	79	108	16,647

MARRIAGES.

The number of Marriages registered during 1902 was 3,682; during the previous year it was 3,640.

TABLE VI.

	Total Number of Marriages in Sheffield.		Persons Married per 1,000 in Sheffield.		Persons Married per 1,000 in England and Wales.	
1888	...	2,885	...	17·9	...	14·4
1889	...	3,073	...	18·7	...	15·0
1890	}	No Record	...	No Record	{	15·5
1891						15·6
1892						15·4
1893	...	3,091	...	18·7	...	14·7
1894	...	2,797	...	16·6	...	15·1
1895	...	3,215	...	18·8	...	15·0
1896	...	2,810	...	16·2	...	15·7
1897	...	3,322	...	18·8	...	16·0
1898	...	3,465	...	19·3	...	16·2
1899	...	3,496	...	19·2	...	16·5
1900	...	3,663	...	19·8	...	16·0
1901	...	3,508	...	18·7	...	15·8
1902	...	3,640	...	18·8	...	15·8
	...	3,682	...	17·5	...	...
Mean	...	3,280	...	18·4	...	15·5

It will be noted that the number of persons married in Sheffield during 1902 was nearly two per 1,000 greater than in England and Wales.

Attention should be drawn to the Marriage-rate in Sheffield in view of certain opinions expressed in another part of this Report on the low Birth-rate.

BIRTHS.

The number of children whose births were registered during 1902 was 13,938, as against 12,766 in 1901, 12,572 in 1900 and 12,459 in 1899.

The Birth-rate for each of the past years in Sheffield is indicated in the third column in Table X. Practically the Birth-rate in Sheffield has fallen steadily during the past 25 years from 40 per thousand of the population to 33 per thousand—a drop of 17 per cent.

Relatively, however, the Birth-rate has not diminished as much in Sheffield as in many other large towns. See Table VII.

TABLE VII.—*Showing Birth-rate in large towns during 1902.*

LONDON	28·5	MANCHESTER	32·8
WEST HAM	34·1	SALFORD	33·8
CROYDON	26·1	OLDHAM	26·1
PORTSMOUTH	27·1	BLACKBURN	25·6
BRISTOL	27·5	HUDDERSFIELD	24·4
CARDIFF	31·5	HALIFAX	21·3
BIRMINGHAM	31·8	BRADFORD... ..	23·0
LEICESTER	29·1	LEEDS	29·8
NOTTINGHAM	27·8	SHEFFIELD	33·4
LIVERPOOL	34·2	HULL	32·1
DERBY	28·0	SUNDERLAND	35·9
BOLTON	27·2	NEWCASTLE	32·6

Few people appear to realize the serious import, from a national point of view, of this diminution; and few care to inquire into the very delicate subject of the causes which are in operation in producing it.

For a colonising Empire like ours the necessity for checking the fall in the Birth-rate is only too obvious to anyone who cares to inquire into it. If the present rate of diminution continues without any corresponding reduction in the Death-rate, we shall not be able to send colonists abroad without depopulating our own country.

The causes which are in operation in England are undoubtedly identical with those which have recently been so thoroughly investigated in France, and which have caused such disastrous results there.

BIRTHS IN REGISTRATION SUB-DISTRICTS.

In tabulating the births under the several sub-districts of the City it has been necessary to adhere to the areas as they stood previous to the alterations made on 1st October; as no particulars of the address at which a birth occurs are supplied by the Registrars, consequently a re-tabulation of births occurring during the first nine months of the year could not be made.

TABLE VIII.—BIRTH-RATE IN REGISTRATION SUB-DISTRICTS.

	West.	North.	South.	Park.	Bright-side.	Atter-cliffe.	Nether Hallam.	Upper Hallam.	Ecclesall.	Norton.	Hillsboro'
1893	37·9	37·5	33·3	38·7	35·0	38·2	34·5	26·8	30·6	...	...
1894	38·5	38·2	31·7	36·9	33·3	34·6	32·7	23·6	29·7	...	...
1895	40·5	37·9	30·8	39·3	35·9	37·9	34·8	26·4	31·0	...	...
1896	37·9	37·5	32·3	42·2	33·8	35·8	33·8	30·0	30·1	...	...
1897	38·4	38·7	30·0	37·9	34·3	36·8	36·4	27·4	30·2	...	...
1898	40·2	38·5	29·3	37·9	33·4	38·4	33·9	20·6	29·6	...	...
1899	35·5	39·6	30·6	35·8	33·4	38·0	38·8	24·5	29·6	...	...
1900	40·8	36·4	30·2	36·5	32·7	39·7	33·8	21·4	28·6	...	...
1901	37·0	39·4	28·8	36·2	33·1	39·3	33·5	29·6	28·7	...	...
1902	41·6	35·4	33·2	30·0	33·2	37·9	33·2	33·0	29·3	34·4	36·4
Mean	38·8	37·9	31·0	37·1	33·8	37·6	34·5	26·3	29·7	34·4	36·4

In Table IX. is set out certain information as to Population, Legitimate and Illegitimate Births and Birth-rate in each of the registration areas.

TABLE IX.—*Showing the Birth-rate during the year for the whole City and for each of the Registration Sub-Districts ; also the total number of Births, Legitimate and Illegitimate, in each.*

District.	Estimated Population in the middle of 1902.	Legitimate.		Illegitimate.		Totals.	Birth-rate per 1,000 per annum.
		Male.	Female.	Male.	Female.		
Sheffield, West ...	11,939	220	246	18	13	497	41·6
„ North ...	38,859	633	660	36	46	1,375	35·4
„ South ...	14,223	217	231	11	14	473	33·2
„ Park ...	25,323	370	362	13	16	761	30·0
Brightside ...	78,653	1,282	1,190	67	70	2,609	33·2
Attercliffe ...	54,730	1,044	987	13	31	2,075	37·9
Nether Hallam ...	67,187	1,126	1,027	42	36	2,231	33·2
Upper Hallam ...	3,787	63	58	3	1	125	33·0
Ecclesall ...	99,291	1,404	1,406	65	40	2,915	29·3
Norton ...	12,071	215	192	3	5	415	34·4
Hillsboro' ...	12,702	220	229	7	6	462	36·4
Totals ...	418,765	6,794	6,588	278	278	13,938	33·3

ILLEGITIMACY.

The number of Illegitimate Births registered during 1902 was 556 against 563 in 1901, and 578 in 1900. The proportion of Illegitimate Births was therefore 3·9 per cent. of the total number of children born. The proportion of Illegitimate Births in each of the Registration Sub-Districts was as follows :—

West	6·2 per cent.	Nether Hallam...	3·4 per cent.
North	5·9 „	Upper Hallam ...	3·2 „
South	5·2 „	Ecclesall	3·6 „
Park	3·8 „	Norton	1·9 „
Brightside ...	5·2 „	Hillsborough ...	2·8 „
Attercliffe ...	2·1 „		

TABLE X.—*Showing the Population of Sheffield, and the number of Births and Deaths in past years. The Birth-rates and Death-rates deducible from these figures are also shown, also the Birth-rates and the Death-rates in England and Wales.*

YEAR.	SHEFFIELD.					ENGLAND.	
	POPULA- TION.	BIRTHS.		DEATHS.		Birth-rates.	Death-rates.
		Number of Births.	Birth-rates per 1,000 per annum.	Number of Deaths.	Death-rates per 1,000 per annum.		
1736	14,105						
1801	45,758						
1811	53,231						
1821	65,272						
1831	91,702						
1841	110,891						
1851	142,635	5,946	41·6	4,027	28·2	34·2	22·0
1861	186,375	7,561	40·5	4,610	24·7	34·6	21·6
1871	241,506	9,764	40·4	6,843	28·3	35·0	22·6
1872	245,023	9,973	40·6	6,445	26·3	35·6	21·3
1873	248,954	10,761	43·2	6,558	26·3	35·4	21·0
1874	253,645	10,861	42·8	7,009	27·6	36·0	22·2
1875	257,827	11,026	42·7	6,642	25·7	35·4	22·7
1876	262,080	11,205	42·7	6,568	25·1	36·3	20·9
1877	266,401	10,859	40·7	6,154	23·1	36·0	20·3
1878	270,791	10,985	40·3	7,208	26·6	35·6	21·6
1879	275,356	10,822	39·2	6,422	23·3	34·7	20·7
1880	279,800	10,723	38·3	6,410	22·9	34·2	20·5
1881	284,508	10,814	38·0	5,909	20·7	33·9	18·9
1882	289,194	10,837	35·4	6,281	21·1	33·8	19·6
1883	293,001	10,812	36·9	6,755	23·0	33·5	19·6
1884	296,856	11,272	37·9	6,832	23·0	33·6	19·7
1885	300,762	10,737	35·6	6,328	21·0	32·9	19·2
1886	304,720	10,567	34·6	6,130	20·1	32·8	19·5
1887	308,730	10,389	33·6	6,820	22·0	31·9	19·1
1888	312,793	9,863	31·5	6,611	21·1	31·2	18·1
1889	316,901	10,844	34·2	6,841	21·5	31·1	18·2
1890	321,079	10,691	33·2	8,316	25·9	30·2	19·5
1891	325,547	11,862	36·4	7,775	23·9	31·4	20·2
1892	330,816	11,846	35·8	6,840	20·7	30·5	19·0
1893	336,171	11,584	34·5	7,419	22·1	30·8	19·2
1894	341,612	11,267	33·0	6,028	17·6	29·6	16·6
1895	347,141	12,012	34·6	7,008	20·2	30·4	18·7
1896	352,760	11,853	33·6	6,732	19·1	29·7	17·1
1897	358,470	12,132	33·8	7,464	20·8	29·7	17·4
1898	364,272	12,066	33·1	7,213	19·8	29·4	17·6
1899	370,168	12,459	33·7	7,975	21·5	29·3	18·3
1900	376,160	12,572	33·4	8,292	22·0	28·9	18·3
1901	410,991	12,766	33·0	7,891	20·4	28·5	16·9
1902	418,765	13,938	33·3	7,064	16·9	28·6	16·3

DEATHS.

The number of deaths registered in Sheffield during 1902 was 7,064. This gives a mortality-rate of 16·9 per thousand of the population. This is the lowest mortality-rate recorded in the City since accurate records have been kept. One may even go further and assert that this is probably the lowest rate since Sheffield was a small village. Indeed it is questionable whether so low a mortality occurred even in villages several hundreds of years ago.

Sanitary improvement, better general knowledge, meteorological conditions, and several other causes, all played a part during 1902 in keeping down the death-rate.

TABLE XI.

Quinquennial Periods.	Mean Mortality rate per 1,000 of the population.	
	Sheffield.	England.
1871 to 1875	26·8	22·0
1876 to 1880	24·2	20·8
1881 to 1885	21·6	19·4
1886 to 1890	22·1	18·9
1891 to 1895	20·9	18·7
1896 to 1900	20·6	17·7
1901	20·4	16·9
1902	16·9	16·3

The relative position occupied by various towns as regards their recorded and corrected death-rates is set out in Tables XII. and XIII. These tables have been abstracted from the Registrar-General's reports; and as regards the corrected death-rates, they indicate what the rate would have been in each town had the age and sex distribution of the population in each town been identical.

TABLE XII.—Recorded and Corrected Death-rates per 1,000 persons living in 20 Greatest Towns in 1902.

Towns in the order of their Corrected Death-rates.	Recorded Death-rate, 1902.	Corrected Death-rate, 1902.	Comparative Mortality Figure.
ENGLAND AND WALES	16·28	16·28	1,000
ENGLAND AND WALES, less 76 GREAT TOWNS	15·31	14·80	909
76 GREAT TOWNS	17·41	18·50	1,136
CROYDON... ..	13·96	14·32	880
LEICESTER	14·89	15·90	977
PORTSMOUTH	16·76	17·19	1,056
BRADFORD	15·82	17·49	1,074
NOTTINGHAM	16·67	17·57	1,079
HULL	17·18	17·60	1,081
BRISTOL	17·36	17·83	1,095
WEST HAM	17·08	18·26	1,122
CARDIFF	16·80	18·28	1,123
SHEFFIELD	17·07	18·40	1,130
LONDON	17·73	18·64	1,145
BOLTON	16·92	19·15	1,176
LEEDS	17·55	19·16	1,177
BIRMINGHAM	18·62	20·04	1,231
SUNDERLAND	19·46	20·07	1,233
SALFORD	19·29	21·33	1,310
OLDHAM	19·07	21·46	1,318
NEWCASTLE-ON-TYNE	19·88	21·45	1,318
MANCHESTER	19·96	22·30	1,370
LIVERPOOL	22·47	24·04	1,477

Chart A.—WEEKLY NUMBER OF DEATHS, 1902.

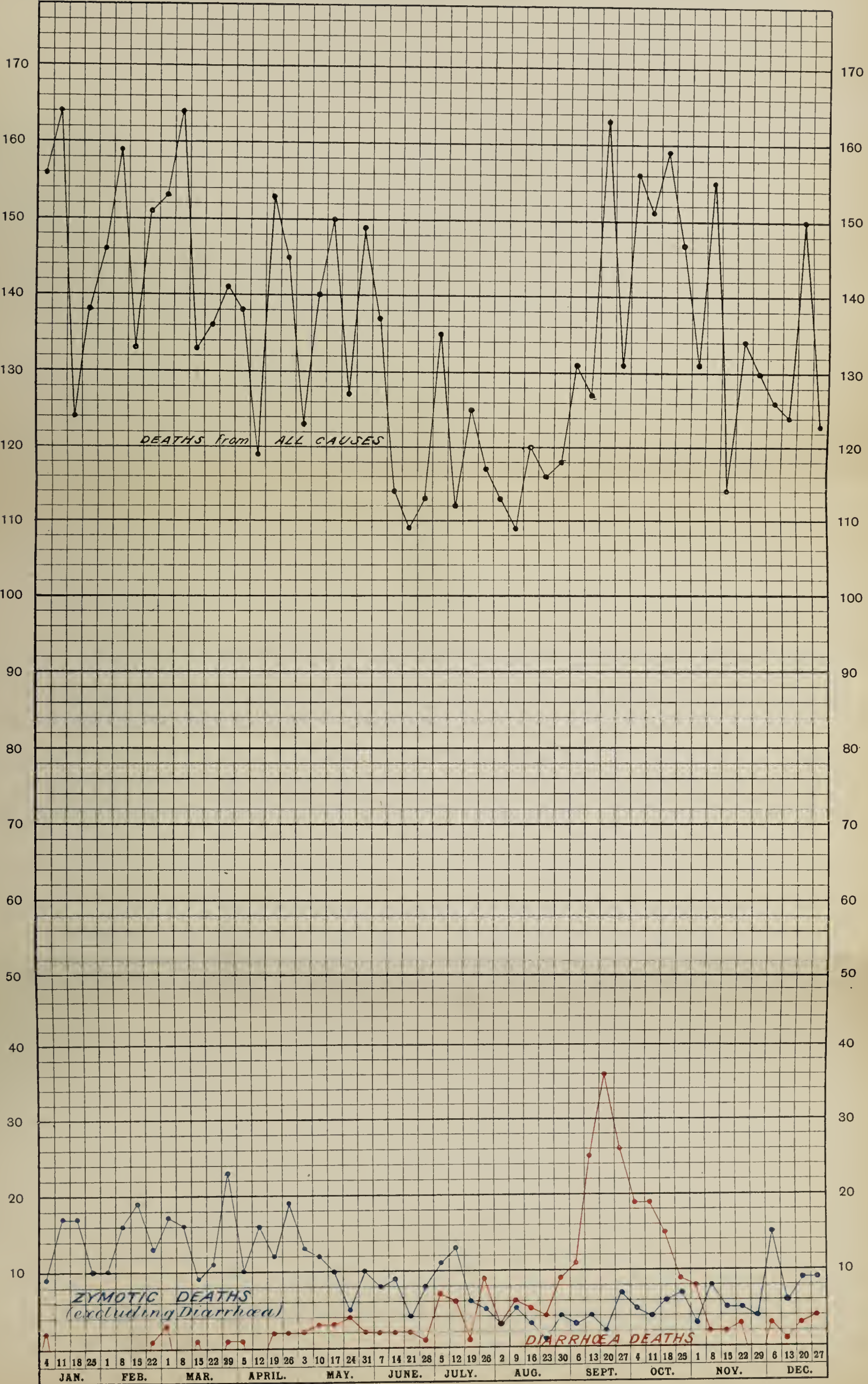


TABLE XIII.

Sheffield's Relative position in the list of 33 great towns.

Year.		Comparative Mortality Figures.		Position on List.	
1892	... ..	1,218	... ..	9th from bottom.	
1893	... ..	1,294	... ..	8th	„
1894	... ..	1,191	... ..	15th	„
1895	... ..	1,216	... ..	11th	„
1896	... ..	1,253	... ..	8th	„
1897	... ..	1,352	... ..	7th	„
1898	... ..	1,280	... ..	6th	„
1899	... ..	1,344	... ..	5th	„
1900	... ..	1,372	... ..	5th	„
1901	... ..	1,343	... ..	7th	„
1902	... ..	1,130	... ..	17th	„

INFANTILE MORTALITY.

During the year 1902 no less than 2,081 deaths occurred of infants under one year of age. This gives a mortality-rate of 150 per thousand births. It will be noted from the following comparative table that the infantile mortality-rate during the year 1902 was an exceptionally low one when compared with previous years ; indeed, so far as our records go, the year 1902 was remarkable for the relatively small number of deaths among young infants. This was due chiefly to the cooler weather which prevailed, and consequently the fewer deaths from Summer Diarrhœa.

1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
193	157	195	171	197	195	194	200	202	150

In each of the Registration Sub-Districts the infantile mortality rate is shown below :—

North	...	...	...	200	Nether Hallam	...	...	139
South...	...	...	...	148	Upper Hallam	...	...	56
Park ...	...	...	...	164	Ecclesall	...	...	125
Brightside	...	...	...	143	Norton	...	...	123
Attercliffe	...	...	...	180	Hillsbro'	...	...	123

Comparing Sheffield with other towns, it will be noted in Table XIV. that the rate for Sheffield was relatively better during 1902 than that in many other towns. The explanation for this is interesting and important. In most of the towns mentioned in the Table, the effect of heat and cold is much less marked than it is in Sheffield, and but for our excess of filth nuisances, Sheffield would have a rate which would compare favourably with other towns.

In the following table are shown the rates of infantile mortality in the 20 greatest towns during 1902:—

TABLE XIV.—*Infantile Mortality-Rate.*

TOWNS.	Ten Years. 1892-1901	1902	TOWNS.	Ten Years. 1892-1901	1902
76 GREAT TOWNS ...	...	145	BOLTON ...	180	134
LONDON ...	159	141	MANCHESTER ...	191	152
WEST HAM ...	169	149	SALFORD ...	205	157
CROYDON ...	140	132	OLDHAM ...	180	148
PORTSMOUTH ...	162	152	BRADFORD ...	170	139
BRISTOL ...	146	131	LEEDS ...	180	159
CARDIFF ...	161	146	SHEFFIELD ...	188	150
BIRMINGHAM ...	189	157	HULL ...	179	137
LEICESTER ...	191	153	SUNDERLAND ...	175	152
NOTTINGHAM ...	185	159	NEWCASTLE ...	174	139
LIVERPOOL ...	191	163			

In the previous Annual Reports, and in several special Reports, attention has been drawn to the main factors which are at work in keeping up the high infantile mortality in Sheffield. It is quite wrong to say that the infants who die are, in the majority of instances, puny and unhealthy, and special stress must be laid on the necessity of making every effort to save these young lives. One cannot help but feel that if the work which has been commenced during the past few years, with the object of preventing infantile mortality, is continued, in a few years' time good results will follow. Briefly, this work consists in (*a*) getting rid of filth nuisances in close proximity to dwellings; (*b*) the teaching of mothers that cleanliness in and about their houses is absolutely essential if Summer Diarrhœa is to be prevented; and (*c*) the improving of the milk supply, so that clean milk may be delivered at the houses, even in the poor districts, rather than that contaminated with cow-down and dust of all kinds.

There are, of course, a very large number of other points that are receiving attention, such as the paving of roads, the making of drains, and the better housing of the people. Each death from Summer Diarrhœa has been investigated by one of the Women Inspectors, and the information thus obtained has shown during 1902, as it has done in previous years, that a very large amount of carelessness exists in the feeding and rearing of infants. At the present time the Women Inspectors give any necessary instructions when by accident they come across a house with an infant in it. Several attempts have been made in Sheffield to improve this haphazard method by obtaining lists of houses in the poorer and dirtier districts of the City, where births have taken place, but unfortunately, the Section in the Act of Parliament which gives the Registrar power to supply the Sanitary Authority with a return of deaths does not give power to supply a return showing where births have taken place. Fortunately, a way out of the difficulty has been found, for quite recently the City Council has become the Educational Authority for the district, and, as such, it has the power, under Section 26 of the Elementary Education Act, 1876 (39 and 40 Vict., s. 79), to require registrars to supply lists of places where births have taken place. It is highly desirable that use should be made of this power, and, as in the case of deaths, the information thus obtained will be used with the greatest possible care, and, without a doubt, much good will result.

The section referred to reads as follows :—

- “ Every Registrar of Births and Deaths, when and as required by a Local Authority, shall transmit, by post or otherwise, a return of such of the particulars registered by him concerning deaths and births of children as may be specified in the requisition of the local authority.
- “ The Local Authority may supply a form, approved by the Local Government Board, for the purpose of the return, and in that case the return shall be made in the form so supplied.
- “ The Local Authority may pay, as part of their expenses under this Act, to the Registrar making such return, such fee as may be agreed upon between them and the Registrar, not exceeding twopence for every birth and death entered in such return.”

TABLE XV.—*Analysis of the Deaths which occurred during the year 1902 among Illegitimate Children under the age of 5 years.*

DISTRICTS.	DEATHS.			AGES AT DEATH.				CAUSES OF DEATH.							CERTIFIED, NOT CERTIFIED, INQUEST.		
	TOTAL.	MALE.	FEMALE.	UNDER 1 WEEK.	BETWEEN 1 WEEK AND 1 MONTH.	BETWEEN 1 MONTH AND 1 YEAR.	BETWEEN 1 YEAR AND 5 YEARS.	ZYMOTIC DISEASES.	DIARRHOEA.	CHEST INFLAMMATIONS.	MENINGITIS AND CONVULSIONS.	VIOLENCE.	INANITION.	OTHER CAUSES.	CERTIFIED.	NOT CERTIFIED.	INQUEST.
Sheffield North.	24	15	9	3	1	15	5	2	1	3	4	1	4	9	22	1	1
„ South.	20	15	5	1	1	11	7	3	3	1	3	...	2	8	18	2	...
„ Park...	14	9	5	1	1	8	4	2	2	4	...	...	3	3	14	...	...
Brightside	29	16	13	2	2	21	4	1	1	8	2	...	5	12	28	...	1
Attercliffe	37	22	15	2	2	26	7	4	7	11	2	...	5	8	36	1	...
Nether Hallam.	18	10	8	2	3	8	5	3	3	3	2	...	5	2	17	...	1
Upper Hallam.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ecclesall	22	17	5	2	2	15	3	1	5	2	2	2	5	5	20	...	2
Norton	4	2	2	...	1	1	2	1	...	...	1	..	1	1	2	2	...
Hillsboro'	9	7	2	1	2	4	2	...	1	...	3	...	3	2	8	1	...
Totals	177	113	64	14	15	109	39	17	23	32	19	3	33	50	165	7	5

TABLE XVI.—Showing the number of Deaths at different ages, and from various causes, in each of the Registration Sub-Districts, for the year 1902.

DISTRICTS.	AGES AT DEATH.						CAUSES OF DEATH.					
	All Ages.	Under 1 Year.	1 and under 5 Years.	5 and under 15 Years.	15 and under 25 Years.	25 and under 60 Years.	Over 60 Years.	Zymotic Diseases (excluding Diarrhœa).	Diarrhœa.	Phthisis.	Chest Inflamma- tions.	Other Causes.
Sheffield North ...	959	276	140	43	22	282	196	87	54	83	101	634
Do. South ...	567	143	59	16	14	169	166	32	27	51	192	265
Do. Park ...	485	126	68	15	19	132	125	51	18	30	81	305
Brightside...	1,219	374	145	57	44	326	273	88	44	75	213	799
Attercliffe ...	924	373	124	37	32	220	138	61	43	52	203	565
Nether Hallam ...	1,065	311	153	46	44	272	239	94	30	66	193	682
Upper Hallam ...	39	7	2	1	2	12	15	1	—	4	7	27
Ecclesall ...	1,443	363	135	47	53	431	414	85	48	106	206	998
Norton ...	172	51	22	5	6	48	40	17	4	10	18	123
Hillsborough ...	191	57	19	7	7	46	55	10	2	14	29	136
TOTALS..	7,064	2,081	867	274	243	1,938	1,661	526	270	491	1,243	4,534

This Table has been compiled after distributing the Deaths which occurred in the various Public Institutions over the Sub-Districts from which they were admitted. Deaths occurring in Public Institutions beyond the District have also been distributed over the Sub-Districts from which they were admitted. Deaths, in Public Institutions, of persons not resident in Sheffield have been deducted.

TABLE XVII.—*Showing the Death-rate per 1,000 per annum, at different ages and from various causes, in each of the Registration Sub-Districts, for the year 1902.*

DISTRICTS.	AGES AT DEATH.							CAUSES OF DEATH.				
	All Ages.	Under 1 Year.	1 and under 5 Years.	5 and under 15 Years.	15 and under 25 Years.	25 and under 60 Years.	Over 60 Years.	Zymotic Diseases (excluding Diarrhoea).	Diarrhoea.	Phthisis.	Chest Inflammations.	Other Causes.
Sheffield North	24·7	251·4	37·5	5·3	2·8	17·7	94·0	2·23	1·38	2·13	2·60	16·31
Do. South	21·7	193·2	23·5	2·9	2·6	15·7	118·2	1·22	1·03	1·95	7·34	10·13
Do. Park	19·2	176·0	28·0	2·9	3·7	12·7	92·0	2·01	0·71	1·18	3·20	12·04
Brightside	15·5	168·2	19·2	3·5	2·7	10·1	64·6	1·11	0·55	0·95	2·71	10·16
Attercliffe	16·9	241·1	23·6	3·3	2·8	9·8	47·0	1·11	0·78	0·95	3·71	10·32
Nether Hallam	15·9	163·8	23·7	3·3	3·2	9·9	66·3	1·39	0·44	0·98	2·87	10·15
Upper Hallam	10·3	65·4	5·5	1·3	2·6	7·7	73·9	0·26	...	1·05	4·75	7·13
Ecclesall	14·5	129·3	14·2	2·3	2·6	10·6	77·7	0·85	0·48	1·06	2·08	10·05
Norton	14·2	149·6	19·0	2·0	2·4	9·7	61·7	1·40	0·33	0·82	1·43	10·19
Hillsboro'	15·0	158·8	15·6	2·6	2·7	8·8	80·6	0·78	0·15	1·10	2·28	10·70
CITY	16·9	175·8	21·6	3·1	2·8	11·3	73·9	1·25	0·64	1·17	2·97	10·82

XVIII.—Showing the number of Deaths and the Death-rate per 1,000 of the Inhabitants of Sheffield during 1902, from all causes, and from a number of specified causes. Also the number of persons alive, the number of Deaths, and the Death-rate per 1,000 of those living at all ages, and at certain specified age-periods. The number of Marriages, and of Births, together with the rates deducible therefrom, are also given.

	Annual Death- rate per 1000	All Ages	Under 1 Year	1 and under 2 Years	2 and under 3 Years	3 and under 4 Years	4 and under 5 Years	Totals under 5 Years	5 and under 10 Years	10 and under 15 years	15 and under 20 years	20 and under 25 Years	25 and under 35 Years	35 and under 45 Years	45 and under 55 Years	55 and under 65 Years	65 and under 75 Years	75 and upwards
Annual Death-rate per 1,000	...	16·86	175·8	46·0	19·6	11·1	7·7	56·6	3·8	2·3	2·6	3·1	4·9	10·5	18·8	36·6	74·8	164·9
Age Distribution of Population	...	418765	11838	10524	10117	9795	9782	52056	46299	40737	42145	43589	71940	50960	36160	21902	10109	2868
All Causes	...	7064	2081	484	199	109	75	2948	179	95	108	135	352	536	680	802	756	473
Small Pox...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	·44	185	50	79	36	8	7	180	4	...	...	1	...	...	...	...	...	...
Scarlet Fever	·14	58	3	6	8	8	8	33	16	5	1	1	1	1	...	...	...	...
Diphtheria and Membranous Group	·28	117	4	17	18	22	20	81	29	4	1	1	...	...	1	...	...	...
Whooping Cough	·17	72	37	17	8	7	3	72	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	·11	47	...	...	...	1	1	2	3	11	6	7	7	5	4	1	...	1
Simple, &c., Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Septicæmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Pyæmia	·05	22	...	...	...	...	...	...	...	...	1	2	15	4	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Diarrhœa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Enteritis	·64	270	192	41	6	3	1	243	1	...	...	1	...	1	4	6	9	5
Diarrhœa, Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carcinoma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sarcoma	·71	300	1	...	...	1	...	2	...	...	...	1	5	42	84	91	62	13
Malignant Disease, Cancer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Phthisis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
“ Phthisis ”	1·17	491	6	1	1	2	...	10	5	9	21	24	105	128	111	61	16	1
Tuberculous Meningitis	·27	111	46	19	10	5	8	88	11	5	3	1	3	...	...	...	...	...
Tuberculous Peritonitis	·08	32	14	3	1	2	...	20	5	2	...	...	...	3	1	1	...	...
Tuberculosis Mesenterica	·10	43	33	8	1	...	...	42	1	...	...	...	...	...	...	...	...	...
Nervous System	1·54	644	330	70	12	13	10	435	28	8	10	8	26	26	28	25	34	16
Heart	1·42	595	4	1	...	1	1	7	5	16	16	7	40	69	95	143	120	77
Blood Vessels	1·07	447	1	1	...	...	...	2	1	...	...	1	1	23	75	165	171	76
Respiratory Organs	3·16	1322	416	144	61	20	12	653	21	10	11	16	32	75	93	165	171	75
Digestive System	·86	361	94	12	4	5	...	115	8	8	6	18	25	33	45	49	35	19
Urinary System	·52	219	4	5	3	1	1	14	5	2	6	3	11	27	53	48	35	15
Generative System	·04	17	...	...	...	...	...	...	...	...	...	1	2	4	2	4	2	2
Accidents Childbirth	·12	51	...	...	...	...	...	...	...	...	3	11	22	15	...	...	...	...
Suicide	·10	40	...	...	...	...	...	...	...	...	1	3	5	7	12	10	2	...
Other Violence	·36	152	20	1	...	...	...	...	...	...	8	12	15	17	12	16	9	10
Other Causes	3·51	1468	826	59	23	6	2	916	18	13	14	16	37	56	60	60	115	163

Deaths of Infants (under one year) to 1,000 Births...	150	Marriages Births	...	3,682	Persons Married Birth-rate	...	17·5 per 1,000 living.
			...	13,938		...	33·3
							”

TABLE XIX.—*Mortality at Various Ages.*

AGES.	Number of Deaths.					Death-rate per 1,000 Persons living at each age of Group.				
	1898.	1899.	1900.	1901.	1902.	1898.	1899.	1900.	1901.	1902.
Under 1 year.....	2,347	2,422	2,511	2,573	2,081	225·2	229·3	228·3	236·5	175·8
1 and under 2 years ...	655	708	788	697	484	74·7	79·7	85·1	70·4	46·0
2 „ „ 3 „	240	298	325	253	199	28·0	34·3	36·0	27·3	19·6
3 „ „ 4 „	130	217	205	144	109	15·3	25·2	22·9	16·0	11·1
4 „ „ 5 „	90	151	132	114	75	10·5	17·4	14·6	12·7	7·7
Total under 5 „	3,462	3,796	3,961	3,781	2,948	77·2	83·6	83·7	79·3	56·6
5 and under 10 „	190	323	308	218	179	4·5	7·4	6·8	5·1	3·8
10 „ „ 15 „	85	88	113	97	95	2·1	2·1	2·6	2·6	2·3
15 „ „ 20 „	119	149	129	120	108	3·2	3·8	3·3	3·1	2·6
20 „ „ 25 „	170	154	167	147	135	5·0	4·5	4·7	3·6	3·1
25 „ „ 35 „	350	392	364	380	352	6·3	6·9	6·2	5·7	4·9
35 „ „ 45 „	464	554	575	506	536	10·8	12·7	12·6	10·7	10·5
45 „ „ 55 „	582	634	689	709	680	19·3	20·7	21·6	21·0	18·8
55 „ „ 65 „	700	736	793	778	802	39·9	41·4	42·8	38·2	36·6
65 „ „ 75 „	681	716	740	724	756	80·8	83·9	83·2	76·6	74·8
Over 75 years	410	433	453	431	473	179·4	187·0	188·0	162·8	164·9
At all ages	7,213	7,975	8,292	7,891	7,064	20·2	22·1	22·0	20·4	16·8

CAUSES OF DEATH.

THE GROUP OF ZYMOTIC DISEASES.

In the following Tables will be found the chief facts in regard to this group of diseases :—

TABLE XX.

		DEATHS FROM PRINCIPAL ZYMOTICS.	
		No. of Deaths.	Rate per 1,000.
1890	.....	1,197	..... 3·72
1891	.....	914	..... 2·79
1892	.....	1,060	..... 3·22
1893	.....	1,207	..... 3·61
1894	.....	792	..... 2·33
1895	.....	1,176	..... 3·22
1896	.....	1,072	..... 3·03
1897	.....	1,251	..... 3·52
1898	.....	1,404	..... 3·94
1899	.....	1,648	..... 4·56
1900	.....	1,670	..... 4·44
1901	.....	1,629	..... 4·10
1902	.....	739	..... 1·77

In England and Wales the Death-rate from the seven principal Zymotic Diseases was 1·64.

In the 14 largest towns (each having a population of over 200,000) the rate for the principal Zymotics, as given by the Registrar-General, was as follows :—

LONDON	2·23	MANCHESTER	1·99
WEST HAM	3·20	SALFORD	2·67
BRISTOL	2·82	BRADFORD	1·43
BIRMINGHAM	2·53	LEEDS	1·99
LEICESTER... ..	1·54	SHEFFIELD	1·69
NOTTINGHAM	1·32	HULL	2·27
LIVERPOOL... ..	3·08	NEWCASTLE	1·75

In the 76 great towns the rate was 2·12 per thousand. In the 103 smaller towns it was 1·53.

***TABLE XXI.**—*Zymotic Death-Rates of Sheffield during 1902 and the ten years immediately preceding; also the average rates of the 76 large towns.*

						Rates to 1,000 Persons Living.		
						SHEFFIELD.		Average for 76 Large Towns, 1902.
						Average for 10 years, 1892-1901.	1902.	
Deaths from Small Pox	...	...	...	...	...	0·00	...	0·12
Do. Measles	...	...	...	...	...	0·56	0·45	0·49
Do. Scarlatina	...	...	...	...	...	0·19	0·13	0·19
Do. Diphtheria and Membranous Croup...						0·44	0·27	0·26
Do. Whooping Cough	...	...	...	...	...	0·46	0·17	0·37
Do. Fever...	...	...	...	...	...	0·29	0·11	0·15
Do. Diarrhœa and Dysentery	...	...	...	...	...	1·54	0·56	0·54
Total for above 7 Causes	...	...	...	...	...	3·48	1·69	2·12

* Compiled from the Registrar-General's Annual Summary for 1902.

In the next Table will be seen the number of cases of each infectious disease notified during each month of the year 1902 :—

TABLE XXII.—*Cases of Infectious Diseases notified during the year 1902 under the Infectious Diseases (Notification) Act, 1889.*

DISEASES.	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OCTOBER.	NOV.	DEC.	TOTALS.
Small Pox ... ..	...	1	8	...	...	...	...	...	...	...	13	16	38
Scarlet Fever	156	117	114	125	100	126	91	104	154	168	182	164	1601
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	118	107	69	91	89	84	88	58	60	76	66	63	969
Continued Fever ... ..	...	...	...	...	...	...	1	...	...	...	...	...	1
Enteric Fever	38	16	21	28	16	21	16	30	33	59	65	30	373
Puerperal Fever	4	5	1	2	4	2	3	...	3	4	2	7	37
Erysipelas	25	30	25	38	30	38	32	28	35	31	37	42	391
TOTALS...	341	276	238	284	239	271	231	220	285	338	365	322	3410

TABLE XXIII.—Cases of Infectious Disease notified since 1892.

DISEASES.	NUMBER OF CASES NOTIFIED.											Average 10 yrs. 1892- 1901.
	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	
Small-pox	47	102	8	1	...	...	...	1	...	2	38	16
Scarlet Fever	1,448	1,826	832	766	2,002	1,608	1,493	1,999	1,794	1,474	1,601	1,524
Typhus Fever ... ..	...	...	..	...	...	...	...	...	...	...	...	...
Diphtheria and Mem- branous Croup ... }	296	170	149	122	138	136	332	2,244	2,454	1,598	969	764
Continued Fever... ..	21	35	18	12	14	14	16	4	1	...	1	13
Enteric Fever	197	452	347	469	617	671	903	1,144	512	862	373	617
Puerperal Fever	49	60	45	32	38	37	44	23	41	35	37	40
Erysipelas	291	403	360	334	403	330	298	376	389	286	391	347
Totals	2,349	3,048	1,759	1,736	3,212	2,796	3,086	5,791	5,191	4,257	3,410	3,321

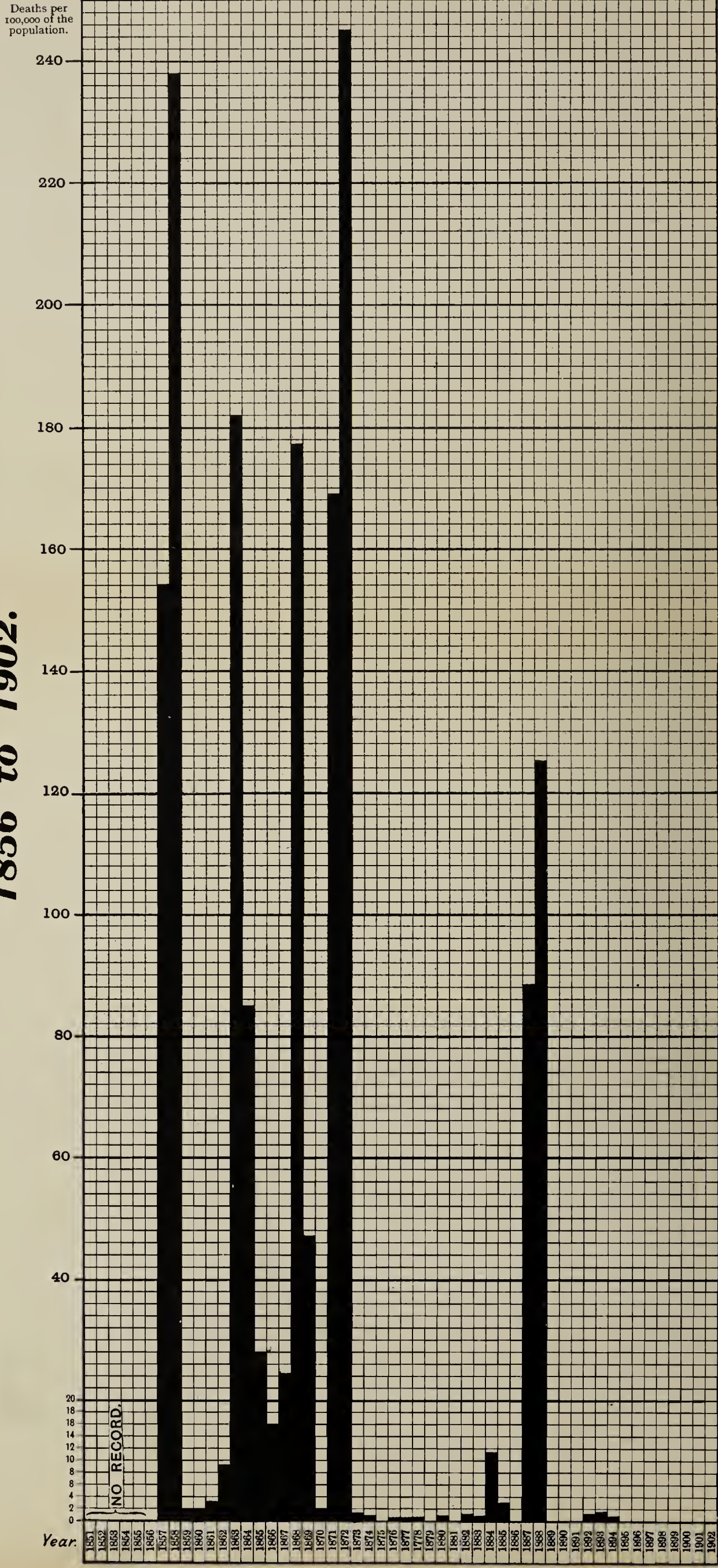
TABLE XXIV.—Monthly admissions to Hospital during the year 1902; also the average number of cases admitted during the previous five years.

DISEASES.	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OCTOBER.	NOV.	DEC.	TOTALS, 1902.	AVERAGE PREVIOUS 5 YEARS.
Small-pox ... ..	...	1	8	...	...	...	...	...	...	...	14	15	38	0·6
Scarlet Fever	67	57	10	75	52	55	75	65	77	61	90	25	709	857
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Mem- branous Croup ... }	20	27	26	29	37	25	35	26	22	29	20	26	322	291
Enteric Fever	19	9	9	11	9	8	14	18	20	35	26	19	197	277
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Other Diseases	4	4	5	3	5	9	12	10	6	10	11	5	84	34
Total Admissions ...	110	106	60	118	103	101	136	123	125	135	191	173	1481	1462

Chart C.

SMALL POX.

Mortality Rate per 100,000 of the population during each year from 1856 to 1902.



SMALL-POX.

Thirty-eight cases of Small-pox came to the knowledge of the Health Department during the year 1902, as compared with two in the previous year.

So long as communities all over this country neglect the protection offered by efficient vaccination, so long will there be recurring outbreaks of Small-pox of a more or less serious character. One has not the slightest hesitation in saying that where efficient vaccination and re-vaccination are carried out, there will be no necessity for the upkeep of Small-pox Hospitals or of staffs to deal with cases of Small-pox when they occur. From the point of view of the sufferer much illness, permanent damage, or in some cases death, will be prevented. That such a statement is not an exaggeration is demonstrated in the simplest way by the fact that the staff who deal with Small-pox cases, and the nurses and medical men who attend such cases, never take Small-pox, unless by some accident a nurse or an inspector gets in with inefficient vaccination. A case of Small-pox among the staff of inspectors dealing with the disease, or among the nurses at a hospital, would be a matter at once suggesting some neglect. With this demonstration of the value of efficient vaccination it is somewhat extraordinary to find how many people of the working classes neglect vaccination. It is, therefore, necessary that hospital accommodation should be provided for this much dreaded disease.

Fortunately for Sheffield the accommodation provided for Small-pox is now adequate and sufficient; and, as an illustration of the value of having an adequate and sufficient hospital, and a staff capable of dealing with the cases, the Chart B has been introduced into this Report.* It shows not only the 29 cases which occurred during the latter part of the year 1902, but also all other cases up to the end of June, 1903. It will be seen that there have been 29 importations of the disease, and that in very few instances was the disease allowed to spread from the house first invaded. It will also be noted from the chart that in no less than 19 instances, one case only resulted from the fresh importation; while in the majority of other importations only persons residing in the house or institution contracted the disease, notwithstanding the fact that many of the importations were tramp importations into the Workhouse, or into large common lodging-houses in the City. In only one instance was there any difficulty in controlling the spread of infection, and that was in the case of a large private lodging house resorted to by certain classes of commercial travellers and workmen. It is known that in one or two cases occupants of this house spread the disease to other towns.

During the past two years importations of Small-pox into Sheffield have been looked upon as highly probable. During the epidemic in London only one importation occurred. Soon after the spread of the disease was arrested in London, several Lancashire and North Yorkshire towns became invaded, and it was evident that we should soon have cases of the disease in Sheffield. Practically, every medical man in Sheffield has used extreme vigilance with regard to the early recognition of any case of Small-pox; and during the year 1902 the Medical Officer of Health visited, usually in consultation with the private medical man, over 300 cases where Small-pox infection was supposed to exist. This work occupied a considerable amount of time. Many of the reports were received late at night, and on Sundays. Fortunately, on all occasions when true cases of the disease occurred, the Staff was found to be ready to deal with them. A good deal of responsibility was attached to the diagnosis in some of these cases. So far as is known, no case was overlooked, and no case sent into Hospital which was not afterwards verified as Small-pox.

The new Small-pox Hospital at Crimicar Lane, the building of which was commenced on September 12th, 1900, was nearing completion when the first case of the disease was reported on November 1st. It was deemed advisable to accommodate this patient in one of the new wards, and for this purpose the necessary furniture was obtained, and the patient admitted within a few hours of receiving the notification. Means were taken by the Hospitals Committee to provide further accommodation, not only for persons suffering from the disease, but for any contacts whom it was advisable to isolate, and also for those who required temporary housing while their homes were being disinfected. This first case was imported from Rouen, and no further cases arose from this source. About this time, however, several towns in North Yorkshire became involved, and on November 8th, two tramps imported the disease into Sheffield: one into the Workhouse, and the other into a lodging-house. In each of these instances a number of secondary cases occurred among persons who had been in contact. From the Chart it will be seen that the importations which followed were in almost every instance importations by persons of the tramp class, whose history showed that they had prior to coming to Sheffield lived at the tramp wards of one Workhouse or another on their way. In nearly every instance it was possible definitely to locate where they got their infection from.

The condition as to vaccination among the tramp class has been one of the greatest importance and of much interest. It will be noted that in Sheffield most of the importations were by tramps during the early part of the Small-pox prevalence, but that later on as the number of unvaccinated tramps diminished, the cases of the disease diminished. This diminishing was entirely due to the large amount of vaccination in tramp wards, prisons, and lodging-houses, which had been done by various Boards of Guardians during the early part of the Small-pox prevalence in neighbouring towns. It was necessary on a large number of occasions to examine the condition as to vaccination of every person in a common lodging-house, and, speaking generally, it was found, in the majority of cases, that these lodgers were well protected by recent re-vaccination. It was mainly due to this protection that Small-pox did not spread in Sheffield as it did in other towns. Unfortunately it is difficult to state the proportion of cases in which protection was good. Taking our larger common lodging-houses as types, it was found that 40 to 50 per cent. of the lodgers had been within the last ten years re-vaccinated in the Sheffield Workhouses; that at least another 20 per cent. had been vaccinated in prisons during the past ten years; and that possibly 10 per cent. had been vaccinated in the Army or Navy within ten years. In many instances as many as 70 per cent. of the lodgers were protected. It is particularly important that attention should be drawn to the good work done in this respect by the Boards of Guardians. Such work goes on during inter-epidemic periods, and doubtless on many occasions its utility may be called in question, but when infection does occur it has proved of immense value to the City.

The mortality from Small-pox during the year 1902 was nil. Unfortunately we have no means of judging of the prevalence of Small-pox in bygone years other than by the number of deaths. It will be seen from the accompanying chart how exceedingly free Sheffield has been from Small-pox deaths within recent years compared with the years 1856-1872.

SMALL-POX AND VACCINATION.

In the Report for 1901, emphasis was laid on the fact that our general scheme of vaccination at present was defective in many respects. Essentially, vaccination is a branch of preventive medicine, and, as such, it is obviously the duty of the Sanitary Authority to see that the law is administered. Although there is not likely to be in Sheffield any friction between the Sanitary Authority and the Boards of Guardians, yet such friction is constantly taking place in other districts, and Sheffield will in time suffer, directly or indirectly. There are many other reasons why the Sanitary Authority should administer the Vaccination Act rather than Boards of Guardians, but the two main faults in our vaccination legislation at the present time are (1) That a large proportion of children are most inefficiently vaccinated, and (2) That there is no provision for systematic re-vaccination. As regards the first of these faults, no medical man should be allowed to vaccinate in the inefficient way in which it is being done at the present time by a certain class of the profession. The remedy apparently for this would not be a difficult one to enforce. As regards the second fault, there can be no question that the old idea about primary vaccination giving absolute protection for a lifetime is quite incorrect, and this more recent knowledge should be acted on by requiring at least one subsequent re-vaccination.

MEASLES.

The number of deaths from Measles which occurred in Sheffield during 1902 was 185, as against 226 in 1901, and 200 in 1900.

The mortality rate was $\cdot 56$ per thousand of the population, against $\cdot 49$ per thousand in the 76 large towns in England. The lowest rate was $\cdot 02$, in Nottingham; and the highest rates were $\cdot 93$ in Rhondda, $\cdot 95$ in South Shields, $\cdot 99$ in Hanley, $1\cdot 07$ in Cardiff, $1\cdot 21$ in Barrow-in-Furness, $1\cdot 22$ in Bristol, and $1\cdot 49$ in Burnley.

Every year the number of deaths from Measles is greater than that from any other infectious disease, except Diarrhoea. It is well known that the disease is highly infectious before it actually declares itself by an eruption, and it is for this reason that the Sanitary Authority have so much difficulty in preventing its spread. It appears to have also an amount of infectiousness which few other diseases possess, not excluding Small-pox. In Table XXV are set out certain statistics in regard to Measles in Sheffield for each year since 1887.

Chart B.

Showing the number of Cases of Small Pox imported into Sheffield from November 1st, 1902, to June 30th, 1903, and the number of secondary cases arising from each importation.

(Tramp importations marked -- (shaded circle).)

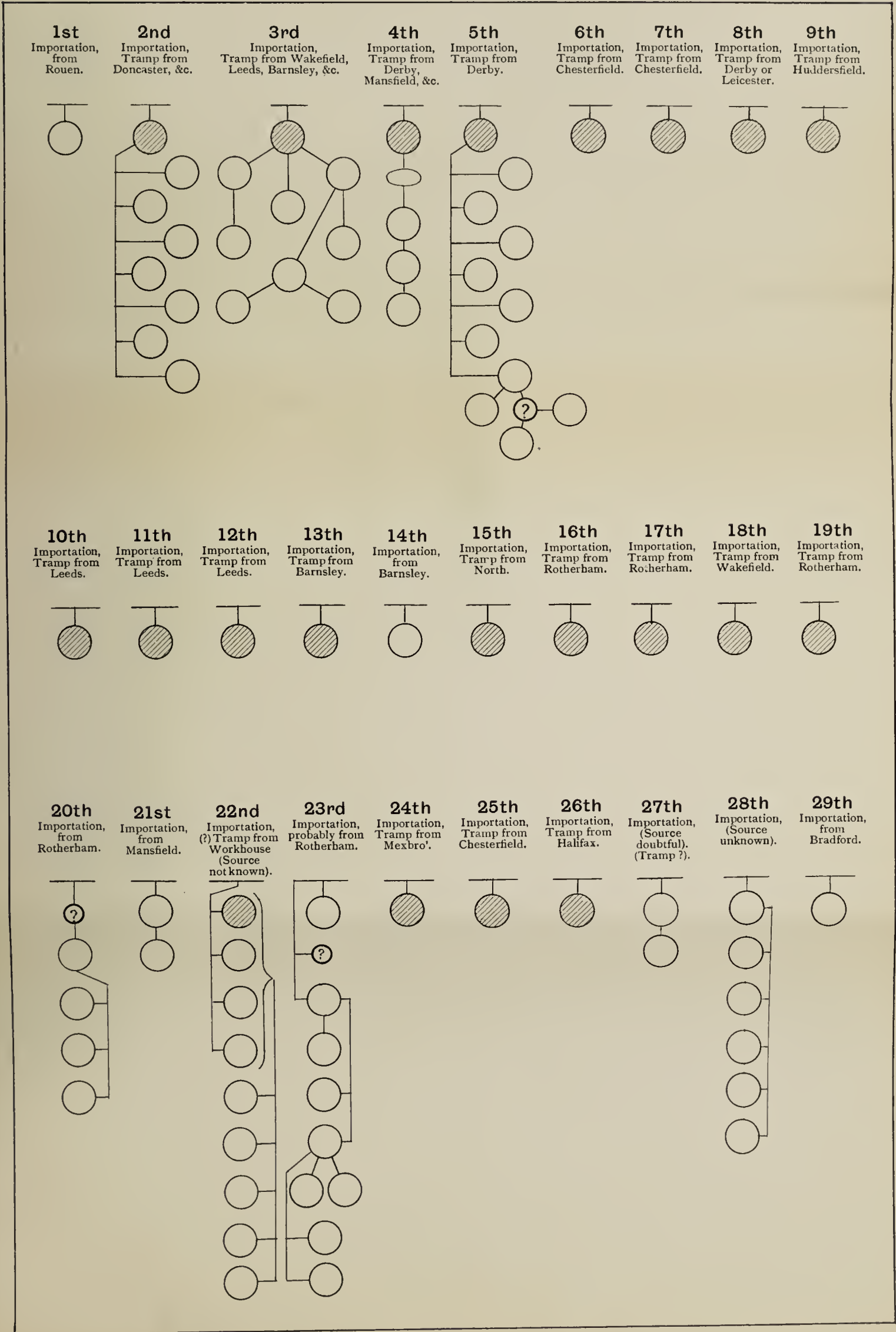


TABLE XXV.—*Measles Mortality.*

Years.	Total Deaths.	Mortality Rate per 1,000.	Males.	Females	AGE AT DEATH.							
					Under 1 Year.	1 and under 2 Years.	2 and under 3 Years.	3 and under 4 Years.	4 and under 5 Years.	5 and under 10 Years.	10 and under 15 Years.	Over 15 Years.
1887	266	·84	147	119	59	117	40	26	13	11	0	0
1888	52	·16	31	21	11	19	12	5	3	2	0	0
1889	226	·69	119	107	40	88	44	22	12	20	0	0
1890	235	·73	116	119	51	84	41	24	19	13	2	1
1891	180	·55	86	94	33	82	24	13	11	17	0	0
1892	248	·75	133	115	59	92	41	30	13	13	0	0
1893	171	·52	78	93	48	61	31	13	10	8	0	0
1894	170	·50	78	92	30	78	36	12	7	7	0	0
1895	189	·55	99	90	42	84	31	11	12	5	1	3
1896	208	·59	109	99	50	85	32	20	11	9	0	1
1897	196	·55	91	105	48	91	22	11	8	15	0	1
1898	177	·50	89	88	40	80	26	15	11	4	1	0
1899	221	·61	106	115	55	90	38	14	14	9	0	1
1900	200	·53	104	96	55	82	32	17	6	6	1	1
1901	226	·58	116	110	48	92	39	17	16	13	0	1
1902	185	·44	94	91	50	79	36	8	7	4	0	1
TOTAL ...	3,150	...	1,596	1,554	719	1,304	525	258	173	156	5	10
Averages of years 1887-1901..	198	·58	100	98	45	82	33	17	11	10	·3	·6

From the above it will be seen that the majority of the deaths occurred among children under 3 years of age, and therefore effort has been directed towards warding off an attack of Measles until the child is over that age.

The school authorities in Sheffield reported 4,281 cases of Measles during the year 1902, as against 5,107 in 1901 and 4569 in 1900. In each case the proceedings described on page 30 of the Annual Report for 1900, were taken to prevent the spread of the disease at the school, and at the home of the patient.

Table XXVI. shows the districts in Sheffield where the mortality from Measles has been heaviest during each year.

TABLE XXVI.—Mortality from Measles in the Sub-Districts.

YEAR.	REGISTRATION SUB-DISTRICTS.									
	NORTH.	SOUTH.	PARK.	BRIGHT-SIDE.	ATTER-CLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLE-SALL.	NORTON.	HILLS-BRO'.
1894	16	7	23	59	12	25	2	26	2	1
1895	35	17	7	21	34	26	2	47	4	...
1896	52	16	24	25	26	34	1	30	...	10
1897	16	25	14	58	39	28	...	25	1	1
1898	17	11	28	48	40	21	...	12	4	...
1899	39	25	20	48	30	10	...	50	4	2
1900	37	9	25	37	20	36	1	35	6	6
1901	25	13	26	41	52	24	1	51	4	4
1902	45	13	16	25	14	37	...	24	5	6

SCARLET FEVER.

For a number of years past a fairly uniform number of Scarlet Fever cases have been notified in the City, as is indicated in Table XXVII. Last year (1902) 1601 cases were notified, against an average for the previous ten years of 1,524 cases. Of the 1,601 cases 58 died, giving a fatality of 3·6 per cent. In previous years the fatality has been rather higher, as is indicated also in Table XXVII. The mortality-rate for Sheffield was 0·13 per thousand of the population, against 0·19 per thousand of the population in the 76 large towns. The rate has varied, as would be expected, ranging from 0·02 per thousand to 0·55 in St. Helens, 0·67 in Bolton, 0·70 in Burnley, and 0·98 in West Bromwich.

TABLE XXVII.—Scarlet Fever Notifications, Deaths, and Percentage Mortality.

Year	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Notified Cases of Scarlet Fever ...	1448	1826	832	766	2002	1608	1493	1999	1794	1474	1601
Deaths	63	89	40	36	100	93	58	91	64	57	58
Percentage Mortality	4·3	4·8	4·8	4·6	4·9	5·6	3·9	4·5	3·6	3·9	3·6

TABLE XXVIII.—Scarlet Fever Notifications, Cases removed to Hospital, and Cases treated at Home during each month of the year.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total Cases	156	117	114	125	100	126	91	104	154	168	182	164
Removed to Hospital ...	73	47	24	66	50	63	65	71	81	64	81	33
Treated at Home	83	70	90	59	50	63	26	33	73	104	101	131

TABLE XXIX.—*Showing total cases of Scarlet Fever removed to Hospital during each year since 1884, and the Percentage of cases removed since the adoption of the Infectious Diseases (Notification) Act.*

YEAR.	Total Number of Cases removed to Hospital.	Percentage of Cases removed.	YEAR.	Total Number of Cases removed to Hospital.	Percentage of Cases removed.
1884	112		1894	452	54 %
1885	67		1895	443	58 %
1886	90		1896	1,185	59 %
1887	66		1897	1,034	64 %
1888	67		1898	912	61 %
1889	226		1899	788	39 %
1890	384	17 %	1900	777	43 %
1891	374	29 %	1901	774	53 %
1892	536	37 %	1902	709	44 %
1893	845	46 %			

TABLE XXX.—*Showing the Notifications of Scarlet Fever in each of the Registration Sub-Districts since 1892.*

YEAR.	REGISTRATION SUB-DISTRICTS,										CITY.
	NORTH.	SOUTH.	PARK.	BRIGHT-SIDE.	ATTER-CLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLESALL.	NORTON.	HILLSBORO'.	
1892	136	107	121	337	64	228	20	435	...	...	1448
1893	190	127	94	405	98	475	8	429	...	...	1826
1894	46	59	46	154	208	93	14	212	...	...	832
1895	62	62	65	196	165	68	7	141	...	...	766
1896	194	191	132	312	395	270	6	502	...	...	2002
1897	171	108	103	320	274	228	4	400	...	...	1608
1898	130	70	72	382	232	227	27	353	...	...	1493
1899	181	140	160	524	252	298	7	437	...	...	1999
1900	140	104	65	403	193	254	10	625	...	...	1794
1901	91	84	58	258	220	236	9	499	15	4	1474
1902	131	70	53	259	239	387	7	395	28	32	1601

In the Annual Report for 1901, certain observations were made on the value of hospital isolation for Scarlet Fever cases. These remarks were based partly on the results of the work of the Isolation Hospital in Sheffield, and also on similar work in other towns. In this report is included the results of valuable investigations made by Dr. F. H. Waddy, on the notified cases of Scarlet Fever in Sheffield during the two years ending December, 1901.

From this it will be seen that the value of hospital isolation in checking the spread of Scarlet Fever is not as great as the lay public would imagine, and while Dr. Waddy's report is included to indicate the true facts of the case, it is necessary to state that the value of hospital isolation differs in nearly every one of the infectious diseases ; and it is only by appreciating the difference in the way in which infection is spread that it is possible to accurately appreciate the value of hospital isolation. As instances of this it is only necessary to observe what takes place in a case of Small-pox, where apparently a very large amount of infectious matter is given off from the moment the eruption appears, until the last scab has fallen off the patient. In such cases hospital isolation is of the highest possible importance. Then, again, in a case of Measles, probably by far the most highly infectious period of the disease is that which occurs before any eruption appears, and then a few days after the appearance of the eruption there will be little infectious matter diffused. While, therefore, it is highly important to get every case of Small-pox isolated from its early stage, it is almost impossible to get hold of cases of Measles during the stages that they are most infectious.

To return to the consideration of Scarlet Fever, experience appears to indicate that the disease is most infectious during the very early stages, and that unless patients are sent in to the hospital early the value of isolation is greatly diminished. The condition of natural immunity of other members of the household where Scarlet Fever has occurred is one of great importance. In a considerable proportion of cases, one child suffers from the disease without in any way communicating it to others in the same house, notwithstanding the fact that all are allowed to play and sleep together during the whole course of the illness. While Isolation Hospitals for Scarlet Fever are not as valuable a means of preventing the spread of the disease as they were formerly believed to be, yet they have a distinct value, and their use should in no way be discounted.

It is, perhaps, only right here to say that the credit of first drawing attention to the value of Scarlet Fever Hospitals is due to the present Medical Officer of Health for Leicester, Dr. Killick Millard.

ABRIDGED REPORT ON THE RECURRENCE OF SCARLET FEVER IN HOUSES
IN SHEFFIELD DURING THE YEARS 1900 AND 1901.

By F. H. WADDY, M.D., D.P.H.

The following report is based upon an investigation into the recurrence of Scarlet Fever in houses in Sheffield during the years 1900 and 1901. Each year the facilities for this task have become improved ; and it is hoped that the returns for the year 1902 will shortly be dealt with much more completely than any hitherto.

Considerable difficulty in the classification of statistics is encountered when enumerating houses ; because one house may afford several successive instances of Scarlet Fever. In some of these instances there may be simultaneous cases ; and perhaps one patient (say, a boy) may be taken to hospital and recover, while the other (say, a girl) may be left at home and perhaps die before she can be admitted.

TABLE A.—Comparing the years 1900 and 1901 with regard to the recurrence of Scarlet Fever in Houses.

	1900.	1901.
Number of cases notified	1794	1474
Number of houses involved	1403	1148
Average number of cases per house	1.28	1.28
Number of cases removed to Hospital	777	769
Proportion of " " "	43%	52%
Number of houses from which cases were removed to Hospital	653	577
Proportion of " " "	46.5%	50.3%
Number of houses in which primary cases only occurred	1168	920
Proportion of " " "	83%	80%
Number of houses from which primary cases were removed to Hospital	593	567
Number of such houses in which no case followed ¹	452	425
Proportion of " " "	76%	75%
Number of houses in which primary cases were treated at home	810	582
Number of such houses in which no case followed ¹	716	496
Proportion of " " "	88%	85%

¹ Up to March 31st of the following year.

Table A presents a summary of the results obtained.

The latter portion of it shows that the houses from which patients go to hospital compare unfavourably in respect of recurrence with those in which patients are treated at home. The proportion of non-recurrence in the former class is 76 % (1900) or 75 % (1901), while in the latter class it is as high as 88 % (1900) or 85 % (1901).

[Exactly the same proportions are obtained if we deal with the somewhat larger numbers of houses from which *any* case (not necessarily the first) was, or was not, removed to hospital.]

In order to discover what grounds of difference exist between the two groups of houses investigations were made with regard to four conditions in particular, viz. :—

- 1. The rateable value.
- 2. The number of inmates.
- 3. The number of rooms.
- 4. The susceptibility of the inmates with regard to Scarlet Fever.

[The cases investigated embraced about one-fifth of the total number notified during the year 1901. It was found by the application of statistical tests that this series, which was alphabetically consecutive, was adequately representative of the whole year.]

The results are shown in Tables B and C.

TABLE B.—Comparing the conditions existing in certain houses (at the time of notification of the primary case).

	Houses from which any case	
	(i) went to hospital.	(ii) was not removed.
	£ s. d.	£ s. d.
Average rateable value	8 18 0	10 15 0
„ number of persons per house	6·0	5·0
Proportion of children to total inmates	49 %	46 %
Average number of rooms per house	4·73	5·04
„ „ persons per room	1·3	1·0
„ „ persons per bedroom	2·2	1·8

TABLE C.—Comparing certain houses with regard to the susceptibility to Scarlet Fever of the inmates remaining (after each case notified).

	Instances in which the case	
	(i) went to hospital.	(ii) was not removed.
Proportion of instances in which some susceptible ² persons (at all ages) remained	100 %	96·2 %
„ „ „ „ children (under 15) „ ...	82·1 %	64·4 %
Average number of susceptible ² persons remaining at home after each instance	4·37	3·24
„ „ „ children (under 15) „ „ „	1·73	1 20
Proportion of susceptible ² children to total number of inmates	36·4 %	27·8 %

² Persons who are said not to have had Scarlet Fever are regarded as “susceptible.”

It will be seen that in every respect the houses from which cases went to hospital constitute an inferior class to those in which cases remained at home. And the question arises whether their inferiority is so great as to account for the wide difference with regard to recurrence which exists between the two groups.

Now, a further deduction may be drawn from Table A. It will be observed that the proportion of houses without recurrence was less in 1901 than in 1900. Yet, as shown in the same table, removal to hospital was carried out in 1901 in a greater proportion of instances than in 1900.

TABLE D.—*Comparing certain houses in respect of susceptibility² of inmates and recurrence of Scarlet Fever.*

						In houses from which the case	
						(i) went to Hospital.	(ii) was not removed.
Number of instances under consideration						140	132
Number of instances in which a susceptible ² person (or more) remained ...						140	127
" " " " " took Scarlet Fever ¹						36	23
Proportion " " " " " " "						25·7 %	18·8 %
Number of instances in which a susceptible ² child (under 15) remained ...						115	85
" " " " " took Scarlet Fever ¹						29	21
Proportion " " " " " "						25·2 %	24·7 %

TABLE E.—*Comparing the years 1900 and 1901 with regard to cases infected before the removal of a primary case; and cases infected after the return of a primary case from Hospital*

	1900.		1901.	
	Cases.	Houses.	Cases.	Houses.
Total number of Hospital cases	777	653	769	577
Instances in which the secondary case was taken ill <i>not later</i> } <i>than seven days after</i> the removal of the primary... }	120	90	131	95
Proportion of houses involved ... ..	...	13·8 %	...	16·5 %
Instances in which the secondary case was already taken ill } <i>before</i> the removal of the primary... }	80	59	99	78
Proportion of houses involved ... ..	...	9 %	...	13 %
Instances in which a secondary case occurred ¹ after the } return of a primary case from Hospital ... }	...	43	...	44*
Proportion of houses involved ... ..	...	6·6 %	...	7·6 %
Instances in which a secondary case occurred <i>not later than</i> } <i>21 days after</i> the return of the primary ... }	...	22	...	31*
Proportion of houses involved ... ..	...	3·4 %	...	5·4 %

* From certain statistics, which there is not space to give in detail here, it is calculated that 19 of these cases following the return of the primary case are to be ascribed to that as their cause.

¹ Up to March 31st of the following year.

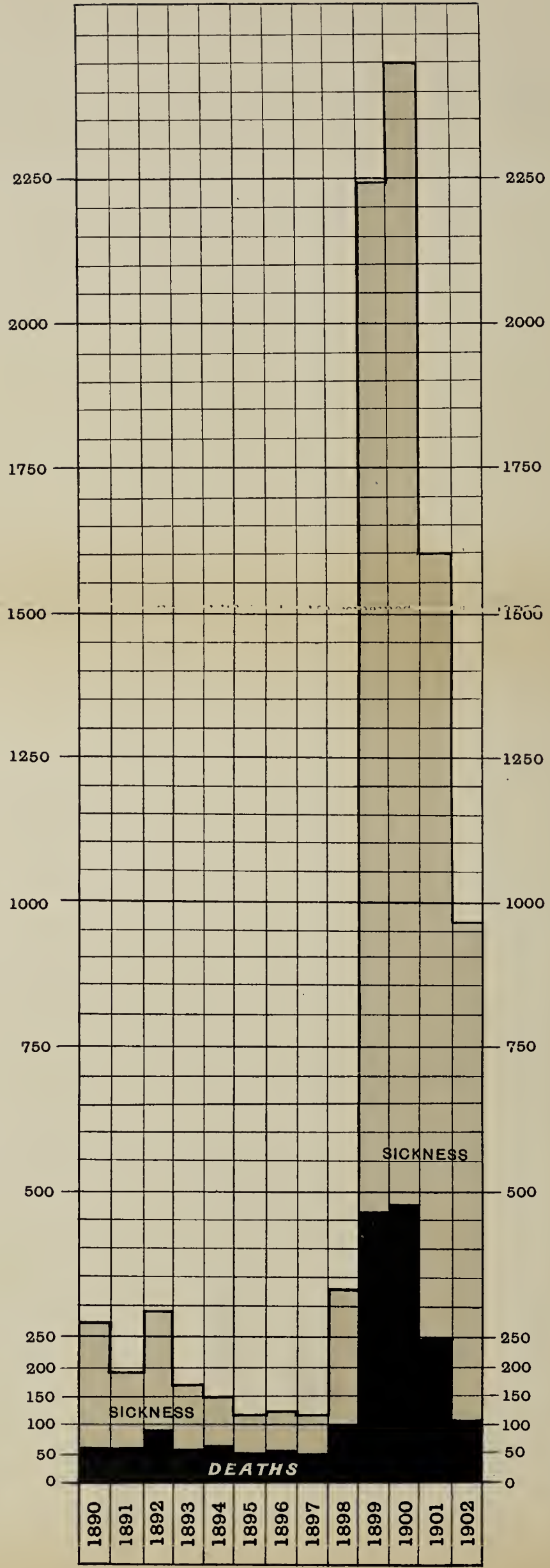
² Persons who are said not to have had Scarlet Fever are regarded as susceptible.

Again, it is manifest from Table E that, concurrently with this increased proportion of cases removed to hospital, there has been an increase (1) in the proportion of cases infected before the removal of the primary case, and (2) in the proportion of cases infected after the return home of the primary case.

Chart D.

DIPHTHERIA IN SHEFFIELD.

Notifications and Deaths recorded since the Notification of Infectious Diseases Act came into operation.



Lastly, in Table D, it may be seen that recurrence in the "hospital" group of houses is greater than in the "home" group, not merely in proportion to the greater quantity of susceptible material, but somewhat *in excess* of that proportion.

It remains, therefore, to consider the circumstances under which recurrence takes place.

These are exhibited in Table F.

TABLE F.—*Comparing the degree of early and late recurrence* ⁽¹⁾ *in houses.*

					Houses from which a case went to Hospital.		Houses in which a case remained at home.	
					Number.	Proportion per cent.	Number.	Proportion per cent.
Total number of Houses					577		599	
(a)	Total recurrence ¹	...	...	...	143	24·8	88	14·7
(b)	Late recurrence ¹	...	...	...	73	12·6	37	6·2
(c)	Early recurrence ¹ only	...	...	...	70	12·1	51	8·5
(d)	No recurrence ¹ whatever	...	...	...	434	75·2	511	85·3
Sum of (c) and (d) [see text]					504	87·3	562	93·8

¹ Up to March 31st of the following year.

The fact now appears that the liability to *early recurrence* in the "hospital" group of houses is nearly half as great again as the liability in the "home" group. It must be observed, however, that the liability to *late recurrence* is twice as great in the "hospital" group as in the "home" group. We are compelled to infer that this increased liability is due to the "return" cases.

If all the cases of early recurrence could be eliminated by the administration of preventive measures, then an expectation of non-recurrence would be realised amounting to 87·3 % in the "hospital" group, and to 93·8 % in the "home" group. (See Table F.) And if, in addition to this result, the prevention of all the genuine "return" cases could be achieved, then the proportion of non-recurrence would amount to 90·5 % in the poorer class of houses, and to 93·8 % in the better class, or to 92·2 % over all. The remaining 6 % or 8 % of recurrence expresses those instances in which infection is introduced into the house afresh; and these instances would become fewer as the possible sources of infection were decreasing.

A consideration of the measures by which such ends are to be attained does not fall within the scope of a purely statistical enquiry.

DIPHTHERIA.

The chief feature which has to be noted during 1902 with regard to the prevalence of Diphtheria, is the decline of the severe epidemic which has prevailed in Sheffield since August, 1898. The total number of cases notified during the year was 969, as compared with 1,598 in 1901, 2,454 in 1900, and 2,235 in 1899. The mortality from the disease has shown a corresponding diminution. During 1902, the mortality from Diphtheria and Membranous Croup was ·27 per thousand of the population, as against ·63 in 1901, 1·27 in 1900, and 1·28 in 1899. In Chart D is shown the number of cases notified for each year since 1890, and the number of deaths from this disease. This indicates well the very great prevalence of the disease in recent years in Sheffield. Other towns have suffered in a similar manner; so that in comparing mortality statistics in regard to Diphtheria, it must be remembered that the disease is one which is apt to be epidemic for several years, and then to be almost absent for a number of years. In the accompanying table is shown the death-rate from Diphtheria in each of the twenty largest towns in England during the past ten years, together with the average mortality in each. During the year 1902, the disease caused a higher mortality in many towns than in Sheffield. In Cardiff it amounted to ·52 per thousand of the population, in Bristol ·54, in Bury ·57, in Middlesex ·64, in Rhondda ·68, and in Hanley 1·28.

TABLE XXXI.—*Diphtheria Mortality Rates in 20 largest towns for ten years 1893-1902, with average Mortality Rate.*

TOWN.		1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901	1902.	Ave. for 10 years.
LONDON	0.76	0.53	0.60	0.51	0.39	0.43	0.34	0.30	0.25	0.47
WEST HAM	0.42	0.77	0.70	0.37	0.63	0.61	0.50	0.65	0.46	0.59
CROYDON	0.78	0.19	0.24	0.07	0.14	0.13	0.18	0.16	0.21	0.23
PORTSMOUTH	0.17	0.11	0.11	0.15	0.30	0.64	0.53	0.38	0.34	0.29
BRISTOL	0.22	0.15	0.16	0.15	0.14	0.10	0.31	0.38	0.54	0.23
CARDIFF	0.68	0.36	0.37	0.53	0.73	0.33	0.42	0.47	0.52	0.48
BIRMINGHAM	0.13	0.37	0.53	0.29	0.26	0.29	0.14	0.16	0.24	0.25
LEICESTER	0.11	0.18	0.32	0.36	0.30	1.06	1.51	0.73	0.15	0.47
NOTTINGHAM	0.07	0.04	0.06	0.09	0.10	0.13	0.12	0.12	0.12	0.09
LIVERPOOL	0.12	0.24	0.24	0.20	0.23	0.34	0.26	0.27	0.30	0.23
BOLTON	0.10	0.13	0.11	0.05	0.07	0.09	0.12	0.16	0.25	0.11
MANCHESTER	0.32	0.21	0.15	0.09	0.10	0.15	0.18	0.24	0.21	0.19
SALFORD	0.29	0.30	0.23	0.15	0.15	0.34	0.41	0.63	0.33	0.31
OLDHAM	0.13	0.18	0.24	0.08	0.07	0.16	0.13	0.09	0.33	0.16
BRADFORD	0.10	0.09	0.07	0.07	0.07	0.11	0.11	0.12	0.30	0.11
LEEDS	0.16	0.16	0.12	0.16	0.54	0.78	0.59	0.41	0.21	0.33
SHEFFIELD	0.18	0.15	0.16	0.13	0.26	1.28	1.26	0.63	0.27	0.45
HULL...	0.11	0.17	0.23	0.14	0.07	0.12	0.08	0.18	0.35	0.15
SUNDERLAND	0.08	0.06	0.06	0.03	0.06	0.06	0.15	0.21	0.10	0.08
NEWCASTLE	0.16	0.25	0.18	0.12	0.13	0.13	0.14	0.16	0.10	0.15

TABLE XXXII.—Mortality from Diphtheria and Simple Croup in the City of Sheffield.

Year.	Population.	Combined Diphtheria and Simple Croup. Death-rate per 1,000.	COMBINED DIPHTHERIA AND SIMPLE CROUP DEATH-RATE PER 1,000 LIVING OF THE POPULATION. DISTRIBUTED ACCORDING TO AGES.								No. of Public Elementary Schools.	Approx. Average No. of children attending Public Elementary Schools. (Yearly Average Attendance).	
			0—1 Year.	1—2 Years.	2—3 Years.	3—4 Years.	4—5 Years.	5—10 Years.	LIVING OF THE POPULATION.				
									10—15 Years.	15—20 Years.			20 Years and over.
1880	279,800	.23	.89	1.71	.89	1.87	1.28	.31	...	...	...	34,887
1881	284,508	.26	.33	2.28	2.49	.98	1.01	.39	.07	.04	...	36,827	
1882	290,516	.31	1.39	2.00	1.47	1.20	1.48	.58	10	...	.01	37,309
1883	295,497	.22	.73	1.27	1.32	1.06	.49	.38	19	...	.01	39,287
1884	300,563	...	...	...	No Record	...	...	...	...	...	...	41,103
1885	305,870	.17	.61	1.68	.58	.69	.82	.34	...	...	.01	43,391
1886	310,957	.16	.50	1.32	1.60	.56	.69	.18	...	...	...	44,393
1887	316,288	.22	.98	1.94	.67	1.66	.79	.33	...	...	.01	44,500
1888	321,907	.29	.58	2.34	1.10	2.50	1.23	.47	...	...	.01	46,912
1889	327,438	.33	1.14	1.36	1.08	1.81	1.32	.85	.09	.03	.03	46,788	
1890	321,079	.32	.87	1.49	1.99	1.74	.89	.77	17	...	.01	47,111
1891	325,304	.30	.86	1.37	1.64	1.40	1.43	.69	.06	.03	.02	52,050	
1892	329,585	.39	.73	2.71	1.52	2.55	2.52	1.07	...	.03	.01	51,697
1893	333,922	.28	.72	2.31	2.24	2.26	1.37	.30	...	.03	.03	52,782
1894	338,316	.26	1.01	2.40	1.85	1.61	2.21	.22	...	...	.01	53,909
1895	342,768	.20	.50	1.78	1.34	1.84	.97	.32	...	...	.02	53,848
1896	347,278	.22	.69	1.99	1.08	1.45	.96	.46	...	...	.01	54,263
1897	351,848	.17	.39	1.85	1.06	.95	1.42	.14	.05	.03	.01	54,514	
1898	356,478	.28	.38	1.48	2.10	1.53	1.05	.75	.12	...	.02	55,567
1899	361,169	1.33	1.70	7.77	8.30	10.11	8.06	3.26	.31	.13	.03	55,646	
1900	376,160	1.32	1.73	6.70	10.18	8.59	7.29	3.40	.35	.05	.05	57,664	
1901	382,334	.64	1.47	4.25	4.11	3.68	4.25	1.41	.37	.05	.02	58,904	
1902	418,765	.29	.42	1.61	1.88	2.25	2.04	.65	.10	.02	.01	64,636	

N.B.—The above calculations are based upon the actual population figures as estimated from year to year.

In the following Table will be found the number of Cases of Diphtheria notified during each month since 1893.

TABLE XXXIII.—*Notifications of Sickness from Diphtheria during each month, 1893–1902.*

MONTHS.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
January... ..	26	16	21	9	9	8	84	320	240	118
February ...	19	10	7	20	11	9	123	187	170	107
March	9	14	12	14	14	12	124	246	136	69
April	17	12	13	14	15	13	100	144	127	91
May	13	6	6	9	9	7	132	142	113	89
June	16	9	4	12	14	11	231	129	118	84
July	6	10	9	8	7	7	202	177	94	88
August	9	15	12	9	8	6	160	151	111	58
September ...	9	17	6	8	6	12	219	128	125	60
October	19	11	7	7	15	40	280	264	120	76
November ...	12	10	14	14	15	110	307	274	134	66
December ...	15	19	11	14	13	90	273	292	110	63
Totals ...	170	149	122	138	136	325	2235	2454	1598	969

TABLE XXXIV.—*Notifications and Deaths from Diphtheria; also the Death-rate and Percentage Mortality since 1892.*

YEAR.	Cases of Diphtheria Notified.	Deaths from Diphtheria.	Death-Rate per 1000 persons per annum.	Percentage Mortality.
1892	296	96	·3	32 %
1893	170	64	·2	38 %
1894	149	68	·2	46 %
1895	122	53	·1	43 %
1896	138	60	·2	43 %
1897	136	48	·1	35 %
1898	325	94	·3	29 %
1899				
1st Quarter ...	331	83	·9	25 %
2nd „ ...	463	101	1·1	21 %
3rd „ ...	581	104	1·4	17 %
4th „ ...	860	177	1·9	20 %
1900				
1st Quarter ...	753	173	1·9	23 %
2nd „ ...	415	103	1·1	25 %
3rd „ ...	456	82	·9	18 %
4th „ ...	830	121	1·2	15 %
1901				
1st Quarter ...	546	92	1·0	17 %
2nd „ ...	358	59	·6	16 %
3rd „ ...	330	47	·5	14 %
4th „ ...	364	45	·4	12 %
1902				
1st Quarter ...	294	47	·4	16 %
2nd „ ...	264	34	·3	13 %
3rd „ ...	206	20	·2	10 %
4th „ ...	205	16	·1	8 %

TABLE XXXV.

DIPHTHERIA CASES TREATED AT HOME.

Notifications and Deaths during each month of the year under several Age-periods ; Percentage under each Age-period of the total number of cases, and the Percentage Mortality :—

				AGES—YEARS.										Totals.
				Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	Over 25	
1902.														
January	Cases ...	...	...	...	7	4	9	8	39	13	5	5	7	97
	Deaths...	...	...	...	1	2	3	5	3	...	1	1	1	17
February	Cases ...	...	...	1	2	5	10	12	22	10	3	4	10	79
	Deaths...	...	...	1	2	2	3	2	3	...	...	...	...	13
March	Cases ...	...	...	1	4	6	1	3	12	8	4	3	3	45
	Deaths...	...	...	...	2	1	...	...	5	...	...	...	...	8
April	Cases ...	...	...	3	5	5	4	11	16	2	2	3	10	61
	Deaths...	...	...	...	3	1	3	2	3	...	...	...	...	12
May	Cases ...	...	...	1	1	8	6	4	13	8	6	3	5	55
	Deaths...	...	...	...	...	4	1	1	1	...	...	...	...	7
June	Cases ...	...	...	1	5	3	7	5	15	4	5	5	8	58
	Deaths...	...	...	...	2	...	2	...	2	...	...	...	...	6
July	Cases ...	...	...	1	2	2	10	3	14	4	1	2	16	55
	Deaths...	...	...	...	2	2	5	...	2	...	...	...	...	11
August	Cases ...	...	...	...	1	2	4	2	6	6	2	6	3	32
	Deaths...	...	...	...	...	1	...	...	1	...	...	...	...	2
September	Cases ...	...	...	1	2	1	1	3	17	3	1	...	9	38
	Deaths...	...	...	1	...	1	...	1	1	...	...	...	...	4
October	Cases ...	...	...	...	2	2	4	8	13	4	3	5	6	47
	Deaths...	...	...	...	...	...	...	1	1	1	...	...	...	3
November	Cases ...	...	...	1	...	1	6	3	16	7	3	5	8	50
	Deaths...	...	...	1	...	...	2	1	...	...	...	...	...	4
December	Cases ...	...	...	...	...	3	5	5	13	3	3	1	6	39
	Deaths...	...	...	...	...	2	...	1	3	1	...	...	...	7
Year's Cases				10	31	42	67	67	196	72	38	42	91	656
Percentage of Total				83·3	73·8	70·0	76·1	72·0	65·3	55·4	64·4	62·7	77·1	67·7
Total Deaths (Home treated cases).				3	12	16	19	14	25	2	1	1	1	94
Percentage Mortality				30·0	38·7	38·0	28·3	20·8	12·7	2·7	2·6	2·3	1·0	14·3

TABLE XXXVI.

DIPHThERIA CASES TREATED IN HOSPITAL.

Notifications and Deaths during each month of the year under several Age-periods : Percentage under each Age-period of the total number of cases : and the Percentage Mortality :—

				AGES—YEARS.										Totals.
				Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	Over 25	
1902.														
January	...	...	Cases ...	...	...	3	3	2	9	1	2	1	...	21
			Deaths...	...	1	...	...	...	...	...	...	...	...	1
February	...	...	Cases ...	...	1	3	3	2	3	5	...	1	1	28
			Deaths...	1	...	1	...	1	1	1	...	...	...	5
March	...	...	Cases ...	...	1	...	2	3	12	2	2	2	...	24
			Deaths...	...	1	...	...	1	1	...	...	...	...	3
April	...	...	Cases ...	1	...	3	3	3	4	8	1	...	7	30
			Deaths...	...	...	1	...	...	...	...	...	...	...	1
May	...	...	Cases ...	1	2	2	2	5	13	3	2	...	4	34
			Deaths...	...	1	...	2	1	1	...	...	...	...	5
June	...	...	Cases ...	...	2	1	1	1	6	8	...	4	3	26
			Deaths...	...	2	...	...	1	...	...	...	...	...	3
July	...	...	Cases ...	...	...	2	1	1	14	5	3	3	4	33
			Deaths...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	Cases ...	...	...	...	1	3	4	10	4	4	...	26
			Deaths...	...	...	...	1	...	...	1	...	...	...	2
September	...	...	Cases ...	...	...	3	2	1	8	2	2	3	1	22
			Deaths...	...	...	...	...	1	...	...	...	...	...	1
October	...	...	Cases ...	...	1	...	1	1	13	5	...	4	4	29
			Deaths...	...	...	...	...	1	1	...	...	...	...	2
November	...	...	Cases ...	...	1	...	...	1	3	5	3	2	1	16
			Deaths...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	Cases ...	...	...	1	2	3	9	4	2	1	2	24
			Deaths...	...	...	...	...	...	...	...	...	...	...	...
Year's Cases	...	...	...	2	11	18	21	26	104	58	21	25	27	313
Percentage of Total	...	...	...	16·7	26·2	30·0	23·9	28·0	34·7	44·6	35·6	37·3	22·9	32·3
Total Deaths (Hospital treated cases)				1	5	2	3	6	4	2	...	...	...	23
Percentage Mortality				50·0	45·4	11·1	14·2	23·0	3·8	3·4	...	...	...	7·3

It will be noted from the foregoing tables that not only has the disease become less prevalent in the City, but that it has also become less fatal (see Table XXXIV). There is no doubt whatever that the fatality of the disease has been largely influenced in Sheffield by the greater use which medical men have made of Anti-Toxin. For the poorer class of patients the Corporation have supplied Anti-Toxin during 1902, in 94 cases, at a cost of £18 11s. 0d. against £31 9s. 0d. in 1901 and £52 10s. 0d. in 1900.

Then also to help in the diagnosis of Diphtheria, the Corporation have paid for the examination of 648 swabbings from the throats of patients in 1902, against 812 in 1901.

DIARRHŒA.

The number of deaths from Diarrhœa during 1902 was 270, as compared with 857 in the previous year. The 270 deaths represent a mortality at the rate of .64 per thousand of the population. This is the lowest death-rate from Diarrhœa in Sheffield of which we have any record. During the previous ten years the mortality from this disease had been 1.54 per thousand. In nearly every town in this country the Diarrhœa mortality-rate was relatively a low one during 1902. It varied from .16 per thousand of the population in Rochdale and South Shields to .91 in Wigan, .94 in Liverpool, 1.17 in Bootle, and 1.44 in Preston. Among large towns which may reasonably be compared with Sheffield, there was a rate of .71 in Birmingham, .59 in Leicester, .72 in Nottingham, .94 in Liverpool, .53 in Manchester, .64 in Salford, .18 in Bradford, .19 in Huddersfield, .21 in Halifax, .60 in Leeds, .41 in Hull, and .26 in Newcastle. Swansea, where the Diarrhœa rate is usually a low one when compared with other towns, had, during 1902, a mortality rate of .49. In nearly every one of the 76 large towns, the Diarrhœa rate was greatly below the average for the previous 10 years. The indirect reason for this low rate in Sheffield and other towns was the long cool summer which characterised the year 1902. This is very well indicated on Chart E, which shows the Diarrhœa mortality in Sheffield compared with the mean temperature of the air at Greenwich. (The temperature being stated as percentages above or below the average during each year.)

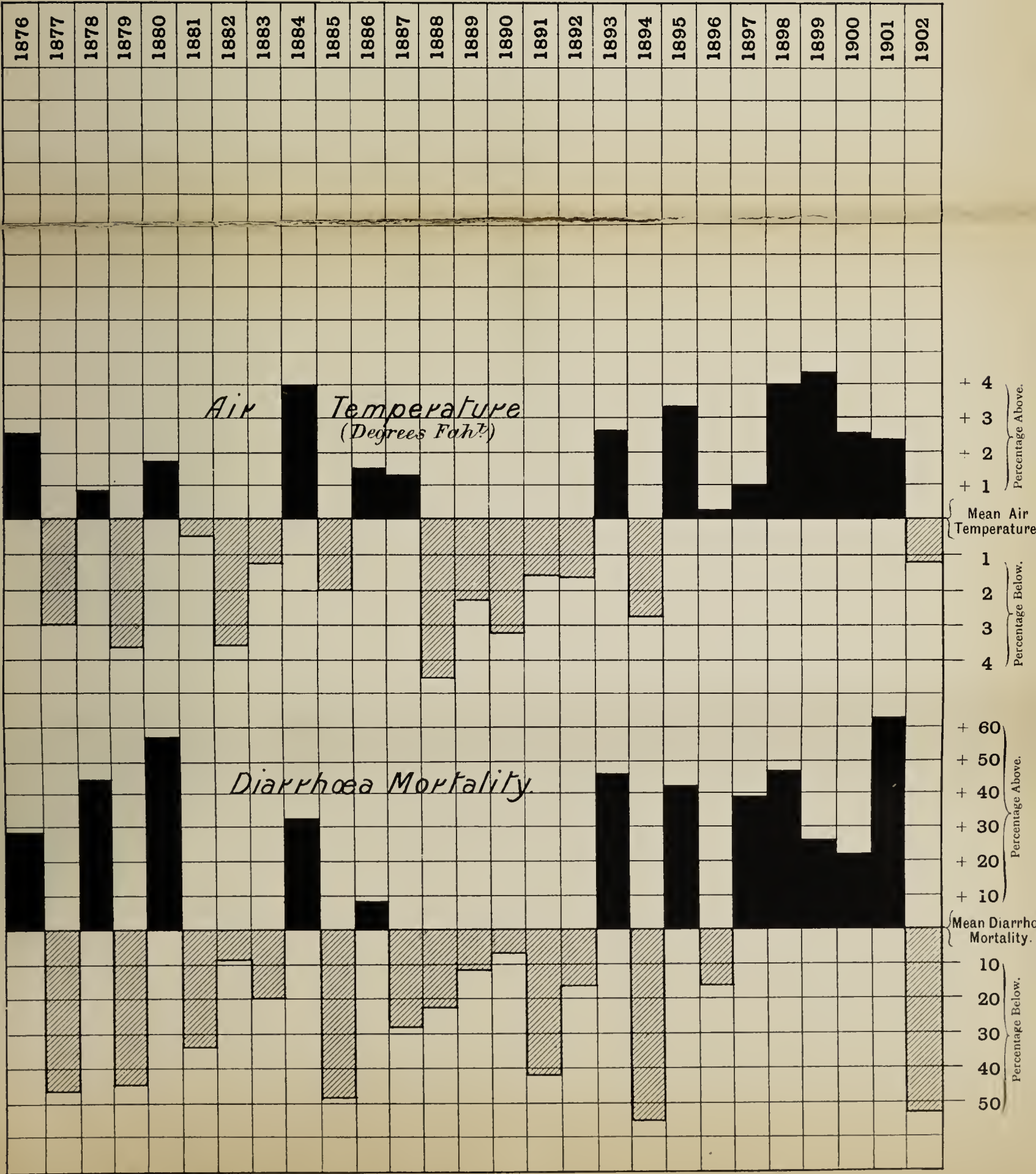
TABLE XXXVII.—*Diarrhœa Deaths.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Whole Year.
1897	4	6	0	2	4	8	104	380	118	25	10	2	663
1898	3	6	10	5	4	14	44	291	251	73	10	2	713
1899	3	2	2	4	4	11	151	250	145	31	12	9	624
1900	5	5	4	5	8	3	97	267	149	64	9	3	619
1901	5	6	9	8	8	14	268	327	153	43	9	7	857
1902	1	4	2	6	13	11	21	2	105	62	8	12	270

In the accompanying Table will be found the number of deaths during each week and certain closely related meteorological data. It will be noted that, as in former years, whenever the soil temperature, at a depth of 4 ft. reaches 53.5 Epidemic Diarrhœa begins and continues till the temperature falls below this.

DIARRHŒA IN SHEFFIELD,

TOGETHER WITH
MEAN TEMPERATURE (*Greenwich*)
During Summer Quarter,
1876 to 1902.



... .. had during 1902, a mortality rate of .49. In

TABLE XXXVIII.—Showing Weekly Deaths from Diarrhœa ; Temperature ; and Rainfall.

Week ending.	Deaths from Diarrhœa.	Maximum Temperature (Shade).	Minimum Temperature (Shade).	Soil Temperature, 4 feet.	Total Rainfall for the Week, in inches.	Week ending.	Deaths from Diarrhœa.	Maximum Temperature (Shade).	Minimum Temperature (Shade).	Soil Temperature, 4 feet.	Total Rainfall for the Week, in inches.
1902						1902					
Jan. 4	1	49·4	40·8	41·9	1·295	July 5	7	68·7	52·2	52·5	0·168
11	...	48·5	41·1	42·0	0·263	12	6	66·5	51·8	53·8	0·245
18	...	43·2	36·6	42·4	...	19	1	69·9	52·4	54·6	0·040
25	...	46·9	40·3	42·0	0·228	26	9	60·9	47·9	54·8	1·336
Feb. 1	...	37·9	28·6	41·9	0·411	Aug. 2	3	61·6	49·5	54·7	0·473
8	...	36·6	31·2	41·0	0·327	9	6	59·3	49·3	54·3	2·506
15	...	36·8	24·9	38·6	0·010	16	5	63·9	49·3	54·0	0·306
22	1	36·1	29·6	39·3	0·180	23	4	63·3	50·4	54·3	0·913
Mar. 1	3	47·2	37·7	39·0	1·254	30	9	66·1	51·1	54·7	0·680
8	...	52·6	38·6	39·6	0·050	Sept. 6	11	66·0	52·1	54·9	0·214
15	1	50·1	40·2	40·6	0·606	13	25	59·7	47·5	55·0	1·605
22	...	51·3	39·2	41·5	0·205	20	36	59·9	47·3	54·5	0·055
29	1	48·4	36·5	42·0	0·571	27	26	63·5	48·5	53·9	0·118
April 5	1	49·3	35·4	42·3	1·230	Oct. 4	19	53·2	44·1	53·6	0·490
12	...	44·9	33·5	42·5	0·115	11	19	50·5	44·2	52·6	0·900
19	2	55·8	37·5	42·2	1·000	18	15	55·3	44·5	51·7	1·373
26	2	58·6	43·0	43·1	0·603	25	9	55·8	44·9	50·9	0·477
May 3	2	53·3	39·0	44·3	0·219	Nov. 1	8	54·7	45·2	50·3	0·069
10	3	48·1	36·2	44·9	0·369	8	2	52·6	43·0	50·0	0·952
17	3	50·9	39·1	44·9	0·608	15	2	51·8	44·1	49·5	0·232
24	4	56·2	42·7	45·3	0·755	22	3	40·9	33·9	48·7	...
31	2	58·5	47·3	46·6	1·016	29	...	47·7	39·6	47·2	0·926
June 7	2	62·8	48·7	48·0	0·472	Dec. 6	3	39·6	33·4	44·9	1·172
14	2	54·0	44·0	49·0	0·615	13	1	38·6	30·8	45·0	0·070
21	2	60·7	47·9	49·2	0·593	20	3	51·1	41·0	43·9	1·271
28	1	75·3	52·4	50·3	0·025	27	4	50·5	44·2	44·1	0·352

TABLE XXXIX.—Death-rate from Diarrhœa in Registration Sub-Districts.

DISTRICTS.	1897.	1898.	1899.	1900.	1901.	1902.
Sheffield North ...	2·63	3·48	3·56	2·92	3·27	1·38
South ...	2·29	2·70	2·12	1·45	1·77	1·03
Park... ...	2·69	2·62	1·83	1·85	3·35	0·71
Brightside	2·22	1·87	1·56	1·58	2·19	0·55
Attercliffe	2·05	2·32	2·15	2·35	2·72	0·78
Nether Hallam ...	1·47	1·85	1·66	1·57	2·30	0·44
Upper Hallam ...	0·35	...	0·35	0·27	1·36	...
Ecclesall	1·14	1·11	0·88	0·91	1·39	0·48
Norton	0·90	0·70	0·32	0·49	1·36	0·33
Hillsboro'	0·81	0·77	0·83	1·23	1·93	0·15
Whole City	1·88*	2·00*	1·73*	1·65*	2·21*	0·64

*Rate for old City area.

TABLE XL.—Deaths from Diarrhœa under several Age-periods.

YEAR.	Under 1 Year.	1 Year and under 2.	2 and under 3.	3 and under 4.	4 and under 5.	5 and under 10.	10 and under 45.	Over 45 Years.
1897	485	115	14	3	0	3	6	37
1898	510	116	19	0	0	1	12	55
1899	467	100	13	6	0	0	7	31
1900	460	97	12	4	4	1	6	35
1901	637	139	16	7	1	7	9	41
1902	192	41	6	3	1	1	2	24

As has already been pointed out in the introduction to this report, the favourable conditions for checking the spread of Epidemic Diarrhœa which existed during 1902, may not be so evident again for a number of years. It is therefore necessary to emphasise the fact that Sheffield is not advanced enough yet to be able to look forward to the time when a hot summer may be contemplated without the fearful loss of life which at present occurs.

There can be little doubt that the waste of life which is due to deaths from Summer Diarrhœa every year in Sheffield is a preventable one, and the feature which is most distressing with regard to it, is that it attacks strong healthy children even more vigorously than the puny and delicate. Each death is due to the inhalation, or the eating or drinking of filth in one form or another.

The remedy is easy to suggest, but difficult to carry out. This difficulty is mainly due to carelessness and ignorance on the part of those in charge of young susceptible children. To summarise what has been stated in previous reports, and what is still as evident as ever, it is desirable that all breeding-places for the generation of all filth and other organisms should be removed from the immediate precincts of the dwelling-houses. For this reason the work done by the Health Committee in substituting water-closets for privies, and ashbins for ashpits, constitutes a real step in the right direction. There is again the necessity for doing away with the enormous amount of surface contamination which is evident in the poorer-class districts of Sheffield. Slop-water is allowed to flow over the surface of the yards and streets. By itself such slop-water does not contain anything very injurious, but such slop-water has sufficient organic matter in it to feed the breeding places for the filth organisms that set up Diarrhœa.

General cleanliness is perhaps equal in importance with the above. Houses which are kept in a dirty condition, where young infants are crawling about on the floor, picking up dirt and dust, are those where Diarrhœa is most prevalent.

Again, milk which has been obtained under filthy conditions, is a fertile spreader of Summer Diarrhœa. It is hoped that in the near future, a complete scheme will be devised whereby in the poorer-class districts of Sheffield the mothers will be visited by competent persons, who will give advice as to how to prevent the living children from contracting the disease. Up to the present time all that has been possible has been that the houses have been visited where deaths have taken place. This has been extremely useful in enabling a good judgment to be formed as to what is at fault, but, obviously, it has not had any direct bearing on the prevention of deaths from Summer Diarrhœa.

Unfortunately the Registrar-General by reason of certain clauses in the Registration Act, has been unable to sanction the supply by Registrars in Sheffield, of the addresses where births have recently taken place, but it appears that this difficulty is likely soon to be removed.

WHOOPING COUGH.

Whooping Cough caused a mortality of .17 per thousand of the population during the year. This is, for Sheffield, a low mortality, as will be seen by comparing the rates which have occurred during previous years, as set out in Table XLI. The mean mortality rate in England was .37 per thousand of the population, and was as high as .99 in South Shields.

One of the characteristics of this disease in Sheffield has been that it has been epidemic for two or three years, with an interval of a year between these epidemic periods. It would seem that 1902 was one of these inter-epidemic periods. Such periods occurred in 1895 and in 1899.

TABLE XLI.—Whooping Cough Deaths and Rate per 1,000.

YEARS	...	...	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
TOTAL DEATHS	...		129	239	73	202	139	219	59	206	124	72
RATE PER 1,000	...		.38	.70	.21	.58	.39	.61	.16	.55	.32	.17

The ages at death are set out for six years in the accompanying table.

TABLE XLII.—Whooping Cough. Ages at Death.

AGES.	1897.	1898.	1899.	1900.	1901.	1902.	TOTALS. SIX YEARS.
Under 1 year	61	86	23	104	56	37	367
1 and under 2 years ...	35	79	23	57	40	17	251
2 and under 3 years ...	18	26	2	21	18	8	93
3 and under 4 years ...	6	21	6	12	3	7	55
4 and under 5 years ...	8	4	4	6	3	3	28
Over 5 years	11	3	1	6	4	...	25

FEVER.

The Registrar-General uses this term to include cases of Enteric or Typhoid Fever, Typhus Fever, and Continued Fever.

No case of Typhus Fever has occurred in Sheffield since 1890.

ENTERIC FEVER.

The death-rate from Enteric Fever in Sheffield during the year 1902 was the lowest on record, viz., .11. The number of cases of sickness reported was 373, as against an average of 617 in the previous 10 years. In England the death-rate from Enteric Fever was .15 per 1000 of the population. In the following Table is set out the mortality-rate from Fever in each of the 20 largest towns in England:—

TABLE XLIII.—Fever Mortality-rate in 20 Largest Towns.

LONDON... ..	0·13	BOLTON	0·20
WEST HAM	0·28	MANCHESTER	0·12
CROYDON	0·06	SALFORD	0·27
PORTSMOUTH	0·28	OLDHAM... ..	0·10
BRISTOL... ..	0·17	BRADFORD	0·11
CARDIFF... ..	0·05	LEEDS	0·18
BIRMINGHAM	0·19	SHEFFIELD	0·11
LEICESTER	0·06	HULL	0·17
NOTTINGHAM	0·21	SUNDERLAND	0·23
LIVERPOOL	0·31	NEWCASTLE	0·05

In Table XLIV. is set out the cases of sickness from Typhoid Fever which have occurred in each of the Registration Sub-Districts during 1902 and during the previous 10 years. It will be noticed that the districts which suffered least during the year were Nether Hallam and Hillsborough, together with the new district of Norton.

TABLE XLIV.—*Reported Cases of Sickness—Enteric Fever.*

YEAR.	REGISTRATION SUB-DISTRICTS.											SICK- NESS RATE PER 1,000.
	NORTH.	SOUTH.	PARK.	BRIGHTSIDE.	ATTERCLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLESALL.	NORTON.	HILLSBORO'.	TOTAL CASES.	
1892	16	16	10	55	11	28	...	61	...	...	197	0·59
1893	65	35	22	147	28	35	1	120	...	...	453	1·35
1894	120	19	15	79	15	40	...	61	..	...	349	1·03
1895	101	46	27	95	42	28	...	131	..	...	470	1·37
1896	48	37	80	184	67	48	1	153	...	...	618	1·77
1897	96	63	83	104	61	62	1	203	...	...	673	1·91
1898	121	80	130	148	91	136	1	196	...	...	903	2·53
1899	188	83	83	310	182	172	3	123	...	...	1144	3·17
1900	73	31	36	185	65	59	1	62	...	...	512	1·36
1901	118	59	45	216	170	149	8	96	...	1	862	2·23
Av'ages 10 years 1892 to 1901.	94·6	46·9	53·1	152·3	73·2	75·7	1·6	120·6	...	·1	618·1	.....
1902	77	26	36	69	45	38	3	70	4	5	373	0·89
Rate per 1,000, 1902.	1·97	0·99	1·42	0·87	0·82	0·56	0·79	0·70	0·33	0·39	...	.....

This prevalence of the disease in certain districts is most important from a public health point of view, and therefore the figures have been worked out for each district as percentages, as indicated in Table XLV. It will be noted that the mortality per thousand in the City is taken as a unit, and the incidence of sickness per thousand is calculated as a percentage above or below this unit.

TABLE XLV.—*Percentage of Sickness in each Registration Sub-District above or below the mean rate for the year, during the last thirteen years.*

YEAR.	REGISTRATION SUB-DISTRICTS.									
	NORTH.	SOUTH.	PARK.	BRIGHT-SIDE.	ATTER-CLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLES-ALL.	NORTON.	HILLS-BORO'.
1890	+ 12	—18	— 47	—10	—24	+27	— 34	+20		
1891	+ 37	+ 5	— 17	—23	—12	+ 0·1	—100	+13		
1892	— 28	— 9	— 33	+34	—50	— 1	—100	+23		
1893	+ 28	—12	— 36	+55	—45	—46	— 73	+ 5		
1894	+215	—37	— 43	+ 8	—63	—20	—100	—31		
1895	+ 99	+15	— 22	— 3	—24	—59	—100	+ 9		
1896	— 26	—29	+ 78	+42	— 9	—46	— 80	— 3		
1897	+ 37	+13	+ 70	—26	—25	—37	— 81	+17		
1898	+ 29	+ 8	+101	—22	—17	+ 2	— 86	—15		
1899	+ 64	—10	+ 2	+29	+28	+ 2	— 67	—58		
1900	+ 38	—15	+ 5	+87	— 5	—31	— 80	—52		
1901	+ 16	...	— 22	+31	+44	+ 3	— 3	—56		
1902	+121	+11	+ 60	— 2	— 8	—38	— 11	—21	—63	—56

TABLE XLVI.—*Showing Enteric Fever Notifications in the several Registration Sub-Districts during each month of the Year 1902.*

					REGISTRATION SUB-DISTRICTS.									
					NORTH.	SOUTH.	PARK.	BRIGHTSIDE.	ATTER-CLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLESALL.	NORTON.	HILLSBORO'.
January	...	...	...	...	8	6	2	6	3	4	...	8	...	1
February	...	...	...	...	2	7	2	1	...	1	...	1	1	1
March	...	...	...	...	5	1	...	2	5	1	...	6	1	...
April	...	...	...	...	13	...	3	4	2	1	...	4	1	...
May	...	...	...	...	7	...	...	3	3	...	...	3	...	...
June	...	...	...	...	7	1	...	4	1	5	...	3	...	...
July	...	...	...	...	4	1	1	2	2	2	...	4	...	...
August	...	...	...	...	5	1	...	9	10	2	...	2	...	1
September	...	...	...	...	8	2	2	6	2	7	2	3	1	...
October	...	...	...	...	8	3	11	9	6	2	1	19	...	...
November	...	...	...	...	8	2	12	18	7	4	...	12	...	2
December	...	...	...	...	2	2	3	5	4	9	...	5	...	...
Totals					77	26	36	69	45	38	3	70	4	5

Table XLVII. shows the number of cases of Typhoid Fever occurring in the City during each month of the year. The most remarkable of the figures for 1902 are those relating to the months of August and September, when relatively a small number of cases of Enteric Fever were notified.

TABLE XLVII.—Enteric Fever Notifications in each month since 1896.

YEAR.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1896	47	52	59	30	9	24	37	107	89	98	35	30
1897	27	24	19	20	10	14	38	69	170	121	80	79
1898	70	39	38	23	15	14	20	23	102	168	243	148
1899	117	61	34	36	24	30	36	117	271	256	117	45
1900	36	15	22	17	11	10	23	62	115	98	79	24
1901	42	30	45	28	25	20	19	102	212	185	103	51
1902	38	16	21	28	16	21	16	30	33	59	65	30

The following table shows the age incidence and the percentage mortality at each age group :—

TABLE XLVIII.—Enteric Fever Notifications, Deaths, and Percentage Mortality at several age periods during 1902.

	At all Ages.	AT AGES—YEARS.					
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.
Cases Notified ...	373	1	38	111	88	134	1
Deaths... ..	47	...	2	14	13	17	1
Percentage Mortality ...}	12·6 %	...	5·2 %	12·6 %	14·7 %	12·6 %	100 %

53 % of the total cases of Enteric Fever were removed to Hospital during 1902, as against 37 % in 1901, 21 % in 1900, and 20 % in 1899. The obvious reason for the smaller number of cases of Enteric Fever which occurred during 1902 was the long, cool summer, with more rainfall than usual.

During the year 1902 a well-marked outbreak of Typhoid Fever occurred, apparently from the consumption of oysters. On September 25th the following report was submitted to the Health Committee :—

DEPARTMENT OF THE
MEDICAL OFFICER OF HEALTH,
TOWN HALL, SHEFFIELD,

SEPTEMBER 23RD, 1902.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

Every summer or autumn during the past five years we have had a few cases of typhoid fever notified which appear to be connected with the consumption of oysters or other shell-fish from Cleethorpes. The number of such cases, however, has never been large, and there has been considerable difficulty in making quite certain whether the people attacked got their infection at Cleethorpes or in Sheffield. However, the fact remained that Cleethorpes seemed to stand out quite distinctly from any other place from which oysters are usually obtained, and also that such cases occurred amongst people who had been to Cleethorpes in a much larger proportion than amongst those who had been to other watering places.

As your Committee are aware, the number of cases of typhoid fever which have occurred during the past few years has been considerable, and this fact made it the more difficult to be quite certain that Cleethorpes oysters were directly or indirectly the cause of the disease in Sheffield. During this year, however, we have had a comparatively small amount of typhoid in Sheffield; but so large a proportion of these cases has a history pointing directly or indirectly to the infection from consumption of oysters or other shell-fish at Cleethorpes, that to my mind, there is no doubt whatever that the majority of them are due to eating shell-fish when at Cleethorpes. In two cases Cleethorpes oysters were sent to Sheffield and appear to have induced the disease here.

In the accompanying table is set out certain particulars in regard to the cases.

The period which seems to have elapsed between the day on which the patient ate oysters at Cleethorpes and the commencement of the attack of typhoid fever appears to be a very varying one. Many of the patients state that they ate oysters nearly every day that they were at Cleethorpes, so that the day on which the infection was received cannot be quite definitely ascertained. The date of the commencement of the illness, as stated to us by the patients themselves or by their relatives, is also an indefinite quantity. These two facts will quite sufficiently explain the wide discrepancy between the incubation period in certain of these cases. The fact that 40 per cent. of the persons attacked with typhoid fever had within an average of 12.9 days of commencing their illness partaken of oysters, and in a few cases cockles, at Cleethorpes, is very strong evidence indeed that they have received the infection there.

In 1896 the Local Government Board issued a Report "On Oyster Culture in Relation to Disease," and in this Report it is pointed out that the whole of the sewage at Cleethorpes and of Grimsby, with a joint population of about 70,000 inhabitants, is discharged on the foreshore at no great distance from the oyster beds. Sir Richard Thorne Thorne, the then Medical Officer to the Local Government Board, in this Report states as follows:—

"These layings, which constitute one of the greatest of the centres from which oysters are distributed over England, are situated between two sewer outfalls from Cleethorpes, one outfall being about a mile and a half above and the other about three-quarters of a mile below, the layings; these two sewers together serving a population of about 7,500. Somewhat over half a mile higher up the Humber than the first-named sewer is the main sewer outfall for Great Grimsby, and about a mile still higher up is the second outfall for the Great Grimsby sewage. These two outfalls together serve a population estimated at some 60,000. . . . But after taking all into account, he (Dr. Bulstrode) is unable to regard the Cleethorpes layings as free from risk, and this view is the more important because vast numbers of the oysters are conveyed direct from them to the market."

I am, Gentlemen,

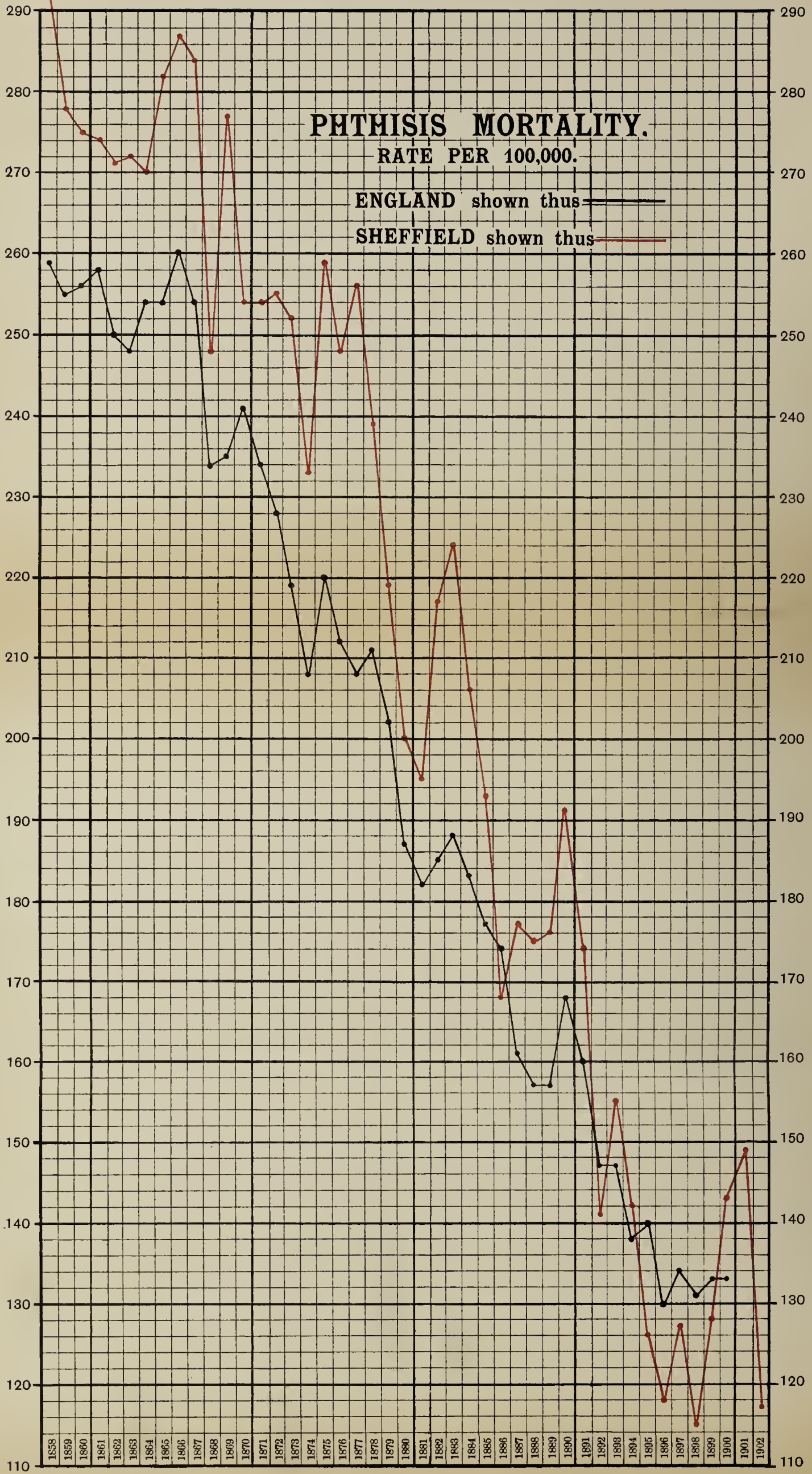
Your obedient Servant,

JOHN ROBERTSON,

MEDICAL OFFICER OF HEALTH.

No.	Date of Notification.	Date of commencement of illness.	As to whether patient partook of shell-fish at Cleethorpes.	Approximate time when oysters or other shell-fish were consumed at Cleethorpes.	Number of days which elapsed between consumption of shell-fish and first symptoms of illness.
1 ..	August 14.. ..	August 1	Yes	In July	(?)
2 ..	" 15.. ..	" 7	Yes	July 28, at Sheffield	10
3 ..	" 16.. ..	" 2 .. ..	....	....	....
4 ..	" 19.. ..	" 12 .. ..	....	....	....
5 ..	" 22.. ..	" 6	Yes	July 16, at Sheffield	21
6 ..	" 22.. ..	" 6 .. ..	....	....	....
7 ..	" 22.. ..	" 12 .. ..	....	....	....
8 ..	" 23.. ..	" 9 .. ..	....	....	....
9 ..	" 23.. ..	" 2	Yes	July 26	7
10 ..	" 23.. ..	July 23 .. ..	....	....	....
11 ..	" 26.. ..	August 18 .. ..	....	....	....
12 ..	" 26.. ..	" 5 .. ..	....	....	....
13 ..	" 27.. ..	" 20 .. ..	....	....	....
14 ..	" 28.. ..	" 5 .. ..	....	....	....
15 ..	" 28.. ..	" 15 .. ..	....	....	....
16 ..	" 28.. ..	" 25 .. ..	....	....	....
17 ..	" 28.. ..	" 18 .. ..	....	....	....
18 ..	" 28.. ..	" 17	Yes	July 31 to August 7	About 12
19 ..	" 28.. ..	" 21	Yes	August 4 to August 9	15
20 ..	" 29.. ..	" 16	Yes	August 2	14
21 ..	" 30.. ..	" 18 .. ..	....	....	....
22 ..	" 30.. ..	" 19	Yes	August 6	13
23 ..	" 30.. ..	" 16 .. ..	....	....	....
24 ..	Sept. 1.. ..	" 21	Yes	August 14	7
25 ..	" 1.. ..	" 25 .. ..	....	....	....
26 ..	" 1.. ..	" 25 .. ..	....	....	....
27 ..	" 1.. ..	" 21 .. ..	....	....	....
28 ..	" 2.. ..	" 21	Yes	August 9	12
29 ..	" 2.. ..	" 19	Yes	August 4	15
30 ..	" 3.. ..	" 20	Yes	August 10	10
31 ..	" 3.. ..	" 24 .. ..	....	....	....
32 ..	" 4.. ..	" 25	Yes	July 28 to August 5	About 20
33 ..	" 4.. ..	Sept. 2 .. ..	....	....	....
34 ..	" 5.. ..	August 15	Yes	August 4	11
35 ..	" 5.. ..	" 26 .. ..	....	....	....
36 ..	" 5.. ..	" 31 .. ..	....	....	....
37 ..	" 9.. ..	" 28 .. ..	....	....	....
38 ..	" 12.. ..	Sept. 8	Yes	August 30	9
39 ..	" 13.. ..	August 27	Yes	August 2	25
40 ..	" 15.. ..	Sept. 3	Yes	August 11 to August 15	About 20
41 ..	" 17.. ..	August 18	Yes	August 6 to August 11	12
42 ..	" 17.. ..	Sept. 3	Yes	For 19 weeks prior to attack.	(?)
43 ..	" 18.. ..	" 9	Yes	August 15	25
44 ..	" 18.. ..	August 30 .. ..	....	....	....
45 ..	" 20.. ..	Sept. 17 .. ..	....	....	....
46 ..	" 20.. ..	" 1 .. ..	....	....	....
47 ..	" 20.. ..	" 13 .. ..	....	....	....
48 ..	" 20.. ..	" 5 .. ..	....	....	....
49 ..	" 22.. ..	" 6 .. ..	....	....	....
50 ..	" 22.. ..	About August 16..	....	....	....

Chart F.



MINOR ZYMOTICS.

INFLUENZA caused 58 deaths during the year, giving a mortality of .13. The total number of deaths occurring during each year from this disease is indicated in the following table:—

TABLE XLIX.—Deaths from Influenza.

1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
33	100	14	61	7	101	51	102	110	44	58

ERYSIPELAS caused 25 deaths, and there were 391 cases of the disease reported. Below is set out the number of Notifications and Deaths during the previous ten years.

TABLE L.—Erysipelas Notifications and Deaths.

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901
Reported Cases of Sickness...	291	403	360	335	403	330	298	376	389	286
Deaths 	14	28	12	16	21	14	20	22	29	13

TABLE LI.—Puerperal Fever.

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Notified Cases ...	49	60	45	32	38	37	44	23	41	35	37
Deaths 	30	27	26	14	20	21	28	18	22	17	22
No. of Births to every Death from Puerperal Fever.)	395	429	433	858	593	578	431	692	571	751	634

TUBERCULAR DISEASES.

750 persons died in Sheffield during 1902 from what has been aptly termed *the white plague*—Tuberculosis in its various forms. In 1901, 849 persons died. The number of deaths which have occurred from each of the main types of the disease is set out in the accompanying table, together with the mortality-rate for each year from the whole group. No other disease occasions so many deaths annually as Tuberculosis. In enquiring into the causes which are in operation in bringing about the disease, two separate and distinct factors have to be kept in mind. There is in the first instance the essential one of infection. No case of Tuberculosis can occur unless the germs of the disease gain access to the human body by one means or another; and secondly, and perhaps equally important with the above, is the condition of the person at the time he receives the infection.

TABLE LII.—*Deaths from Tubercular Diseases during ten years, 1893-1902.*

DISEASE.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Tabes Mesenterica	110	82	134	60	94	65	91	76	68	43
Tubercular Meningitis ...	76	73	115	89	68	94	108	92	132	111
Phthisis	552	502	473	453	522	447	502	539	580	491
Other forms of Tuberculosis	79	64	66	62	36	49	74	55	69	105
Total deaths	817	721	788	664	720	655	775	762	849	750
Mortality-rate ...	2.43	2.11	2.27	1.88	2.01	1.80	2.09	2.03	2.19	1.79

From the point of view of preventive medicine it is difficult to say which of these two factors is the more important. It has already been pointed out in previous reports that the mortality from that form of Tuberculosis which attacks the human lung has been reduced in Sheffield nearly 50 per cent. during the past half century, and it has also been pointed out that this reduction is mainly due to the great improvement which has taken place in the conditions under which people now live. Better sanitary arrangements; less overcrowding; better lighting and ventilation; less dampness in dwellings; greatly improved conditions of work due to our Factory and Workshops Acts; and much improved food supplies; all these have tended towards the magnificent results which have been achieved within recent years. However it has been ascertained that no case of the disease can arise without the infection having taken place, directly or indirectly, from a previous case, and it has been shown almost beyond a doubt, that the chief source of infection is the spit from persons who are suffering from that form of the disease which attacks the lungs. Having got on fairly sure ground in this respect it will not be difficult to give such instructions to infectious persons as will enable them to prevent the infection spreading to others.

STEPS WHICH ARE BEING TAKEN IN SHEFFIELD TO PREVENT TUBERCULOSIS.

Obviously one of the first requirements is to know where the infectious patients are, so that instructions may be given to them how to prevent others catching the infection from them. In nearly every instance the patient is an adult who recognises the seriousness of his own illness, and who in the great majority of instances welcomes any instructions which will help to prevent him permitting his infection spreading to others. Up to the present time a system of voluntary notification of Tuberculosis has been in operation in Sheffield. Each medical man has been asked to report cases to the Sanitary Authority, and during the year 739 such cases were reported, as against 648 in the previous year, and 585 in the year 1900. Each of these persons was visited, and certain instructions were given to them as to the disposal of their sputum. During the year 1902 it became obvious that the use of a handkerchief when coughing was an essential, otherwise small infective particles would be ejected, and the Inspector who makes these visits has given instructions in this respect. So far as Sheffield is concerned, this form of notification has one drawback, *i.e.*, there are a large number of medical men who could not notify such cases without rendering themselves liable to an action for damages for communicating what is a professional secret. It is only fair to say that these medical men, in nearly every instance, would willingly notify if this serious objection were removed. A great step in advance was taken by the Health Committee in their decision to apply for powers to require the compulsory notification of cases of Tuberculosis of the Lung under certain special conditions. These were (1) that the notification of Tuberculosis should be made compulsory under a separate Act of Parliament altogether to that which deals with the notification of other infectious diseases; and (2) that the various statutes referring to other infectious diseases should have no reference to Tuberculosis. In this way all chance of hardship following would be done away with. The powers above referred to were applied for in our local Act for 1903, and after much careful consideration they were passed by both Houses of Parliament, and will soon come into operation.

COMPULSORY NOTIFICATION OF TUBERCULOSIS.

SHEFFIELD CORPORATION ACT, 1903.

SECTION 45.

Provisions for
notification of
Tuberculosis of
the Lung.

(1). (a) Every registered medical practitioner attending on or called in to visit any person within the City shall forthwith, on becoming aware that such person is suffering from Tuberculosis of the Lung, send to the Medical Officer of Health a certificate on a form to be supplied to him gratuitously by the Corporation, stating the name, age, sex, and place of residence and employment or occupation (so far as can be reasonably ascertained) of the person so suffering, and whether the case occurs in his private practice or in his practice as medical officer of any hospital, public body, friendly or other society or institution.

(b) Any such medical practitioner who fails to give such certificate shall be liable, on summary conviction, to a fine not exceeding forty shillings.

(c) The Corporation shall pay to every such medical practitioner for each certificate duly sent by him in accordance with this section, a fee of two shillings and sixpence if the case occurs in his private practice, and of one shilling if the case occurs in his practice as medical officer of any hospital, public body, friendly or other society or institution.

(d) A payment made to any medical practitioner in pursuance of this section shall not disqualify that practitioner from serving as a member of the Corporation, or as a Guardian of a Union situate wholly or partly in the City, or in any municipal or parochial office.

(2). (a) Where the Medical Officer of Health certifies that the cleansing and disinfecting of any building (including in that term any ship, vessel, boat, tent, shed, or similar structure used for human habitation) would tend to prevent or check Tuberculosis of the Lung, the Town Clerk shall give notice in writing to the owner or occupier of such building that the same or any part thereof will be cleansed and disinfected by the Corporation, at the cost of the Corporation, unless the owner or occupier of such building informs the Corporation within 24 hours from the receipt of the notice that he will cleanse and disinfect the building or the part thereof to the satisfaction of the Medical Officer of Health within the time to be fixed in the notice. If within 24 hours from the receipt of such notice the owner or occupier of such building has not informed the Corporation as aforesaid, or, if having so informed the Corporation, he fails to have the building or the part thereof disinfected as aforesaid within the time fixed by the notice, the building or the part thereof shall be cleansed and disinfected by the officers, and at the cost of the Corporation, under the superintendence of the Medical Officer of Health. Provided that any such building or part thereof may, without any such notice being given as aforesaid, but with the consent of the owner or occupier, be cleansed and disinfected by the officers of, and at the cost of, the Corporation, under the superintendence of the Medical Officer of Health.

(b) For the purpose of carrying into effect the provisions of this sub-section, the Corporation may, by any officer authorised in that behalf, who shall produce his authority in writing, enter on any premises between the hours of ten o'clock in the forenoon and six o'clock in the afternoon.

(c) Every person who shall wilfully obstruct any duly authorised officer of the Corporation in carrying out the provision of this sub-section, shall be liable to a penalty not exceeding forty shillings, and, if the offence is a continuing one, to a daily penalty not exceeding twenty shillings.

(3). (a) The Medical Officer of Health, generally empowered by the Corporation in that behalf, may, by notice in writing, require the owner of any household or other articles, books, things, bedding, or clothing which have been exposed to the infection of Tuberculosis of the Lung, to cause the same to be delivered over to an officer of the Corporation for removal, for the purpose of disinfection, and any person who fails to comply with such requirement shall be liable on summary conviction to a penalty not exceeding five pounds.

(b) Such articles, books, things, bedding, and clothing shall be disinfected by the Corporation, and shall be brought back and delivered to the owner free of charge.

(4). If any person sustains any damage by reason of the exercise by the Corporation of any of the powers of sub-sections (2) and (3) of this section in relation to any matter as to which he is not himself in default, full compensation shall be made to such person by the Corporation, and the amount of compensation shall be recoverable in, and in the case of dispute may be settled by, a Petty Sessional Court.

(5). No provisions contained in any general or local Act of Parliament relating to infectious disease shall apply to Tuberculosis of the Lung, or proceedings relating thereto under this section.

(6). All expenses incurred by the Corporation in carrying into effect the provisions of this section shall be chargeable on the District Fund and General District Rate.

(7). The Corporation shall cause to be given public notice of the effect of the provisions of this section by advertisement in the local newspapers and by handbills, and shall give formal notice thereof by registered post to every medical practitioner in the City, and any other registered medical practitioner known to be in practice in the City and otherwise in such manner as the Corporation think sufficient, and this section shall come into operation at such time, not being less than one month after the first publication of such an advertisement as aforesaid, as the Corporation may fix.

(8). The provisions of this section shall cease to be in force within the City at the expiration of seven years from the date of the passing of this Act, unless they shall have been continued by Act of Parliament, or by Provisional Order made by the Local Government Board and confirmed by Parliament, which Order the Local Government Board are hereby empowered to make in accordance with the provisions of the Public Health Act, 1875.

(9). The term "Medical Officer of Health," in this section, shall mean the Medical Officer of Health for the time being of the City, or any person duly authorised to act temporarily as Medical Officer of Health for the City.

It will be noted in the above clauses that power is retained to require the disinfection of houses where cases of Tuberculosis have occurred. This disinfection has been going on since 1899 in Sheffield, but with the more complete returns which we shall soon possess, it will be much more thorough. In order to limit the amount of infectious matter, and to stop what is obviously a dirty habit, a large number of notices have been posted up in public-houses, workshops, and other public places, with a view to stopping the unnecessary habit of spitting. It may be necessary in the near future to go a step further in this direction, and make it a punishable offence to spit on the floor of any public building.

So as to ensure as far as possible that the infection of Tuberculosis should not be spread by dairy cattle to milk consumers, careful and systematic examination has been made of the udders of the dairy cows in the City, and Mr. J. Smout Lloyd, M.R.C.V.S., has furnished the following short Report on this part of his work.

CITY OF SHEFFIELD.

TUBERCULOSIS AND MILK.—VETERINARY INSPECTOR'S REPORT, 1902.

DEAR SIR,

TO THE MEDICAL OFFICER OF HEALTH.

I have pleasure in submitting a short report of the work done in Sheffield during the year 1902 in connection with the tuberculous milk clauses, Sheffield Corporation Act, 1900.

During the year I examined the udders of 2,264 cows in the City cowsheds. Of these 106 had some abnormal condition of the udder, but only 16 of them were suspicious of tuberculosis. Samples of milk from the latter were examined bacteriologically, with the result that 7 were found to contain tubercular infection.

The seven cows thus proved to have tuberculous udders were all killed, six at slaughter-houses in the City, and one at the knacker's yard. Of the six killed in slaughter-houses two were condemned by the Meat Inspector as being unfit for human food. Twenty-eight samples of mixed milk coming into the City by road or rail from districts outside were taken for bacteriological examination, and five of them were found to contain tubercular infection.

The farms from which these five tuberculous samples were known to have come were visited by myself and the representative of the Medical Officer of Health, and the udders of 75 cows were examined. Four were found to have abnormal udders, and samples of the milk from these were taken for bacteriological examination, whilst at one of the farms as no cow having an abnormal udder could be found, a control sample of the mixed milk was again taken. The latter and two of the special samples were found to be free from tubercular infection, the other two were found to be tuberculous. The cows from which the last two samples were taken were slaughtered, the carcase of one being fit for food. The other was unfit for food, and was sent to the knacker's yard at Stockport.

Yours faithfully,

J. S. LLOYD, M.R.C.V.S.

In the Annual Report for 1900, page 57, and in that for 1901, page 53, will be found a short account of the various steps which have been taken to establish a Municipal Sanatorium for Consumption in Sheffield. It is much to be desired that such a Sanatorium should be established in the City. If properly worked in conjunction with the other existing institutions in the City, its value would be far greater than its size would indicate. All difficulties have now been removed, and the erection of such a Sanatorium can be proceeded with whenever the City Council feel that they are justified in expending public money on it.

TABLE LIII.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.												
	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.										
DISEASES OF THE NERVOUS SYSTEM.—Continued.																																																	
Epilepsy ...	27	14	13	1	1	2	...	1						
Convulsions ...	334	188	146	159	115	19	21	3	3	187	142	329					
Laryngismus Stridulus ...	9	4	5	2	3	2	2	4	5	9					
Locomotor Ataxy ...	2	2					
Paraplegia and Disease of Cord...	23	12	11	1				
Neuritis, Periph, Poly-Neuritis...	7	1	6				
Brain Tumour (not Specific) ...	13	8	5	1	1	...	1				
Nervous System, Other Diseases..	52	18	34	1	1	1	1	2			
Total for Diseases of the Nervous System ..	644	342	302	186	144	39	31	5	7	7	6	6	4	243	192	435	17	11	5	3	2	8	4	4	10	16	8	18	16	12	14	11	19	15	4	11	...	1	99	110	209								
DISEASES OF ORGANS OF SPECIAL SENSE.																																																	
Otitis, Mastoid Disease ...	7	3	4	2	1	1	2	2	4	1			
Epistaxis, Nose Disease...		
Ophthalmia, Eye Disease	3	2	1	2	1	2	1	3		
Total for Diseases of Organs of Special Sense ...	10	5	5	4	2	1	4	3	7	...	1	1	
DISEASES OF THE HEART.																																																	
Valve Disease, Endocarditis (not Infective) ...	121	57	64	3	1	1	3	1
Pericarditis ...	6	1	5	
Hypertrophy of Heart ...	1	1
Angina Pectoris ...	4	2	2

TABLE LIII.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		1 & under 1 year.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.						
	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.				
DISEASES OF THE HEART.—Contd.																																									
Dilatation of Heart ...	8	2	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatty Degeneration of Heart ...	42	23	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syncope, Heart Disease (not specified)...	413	202	211	1	3	1	1	...	7	2	5	
Total for Diseases of the Heart	595	288	307	1	3	1	1	...	7	2	5	
DISEASES OF BLOOD VESSELS.																																									
Cerebral Hæmorrhage, Emb.																																									
Throm. ...	169	89	80	1	1	
Apoplexy, Hemiplegia ...	210	92	118	
Aneurysm ...	12	11	1	
Senile Gangrene... ..	15	8	7	
Embolism, Thrombosis (not Cerebral) ...	3	1	2	1	
Phlebitis ...	1	1	
Varicose Veins
Blood Vessels, other Diseases ...	37	25	12
Total for Diseases of Blood Vessels ...	447	227	220	1	2
DISEASES OF THE RESPIRATORY SYSTEM.																																									
Laryngitis ...	15	9	6	2	3	6	4	10
Membranous Laryngitis (not Diphtheritic)
Croup (not Spasmod. or Membr.)	3	2	1	1	2
Larynx, other Diseases (not specified) ...	2	...	2	2
Bronchitis ...	630	347	283	120	95	20	24	9	10	1	2	1

TABLE LIII.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.								
	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.							
DISEASES OF RESPIRATORY SYSTEM <i>Continued.</i>																																													
Lobar, Croupous-Pneumonia ...	39	25	14	4	2	2	...	1	...	1	...	...	...	8	2	10	1	...	...	1	...	2	1	1	1	4	3	4	3	...	1	...	...	...	17	12	29							
Broncho, Catarrhal, Lobular Pneumonia ...	292	160	132	72	63	37	33	17	9	3	6	2	2	131	113	244	...	2	2	2	1	1			
Pneumonia ...	269	170	99	27	21	16	12	7	5	1	1	3	2	54	41	95	8	1	2	2	5	1	3	1				
Emphysema, Asthma ...	23	12	11				
Pleurisy ...	13	7	6	...	1	1	1	...	1	1				
Fibroid Dis. of Lung ...	4	4				
Respiratory Diseases, Other ...	32	14	18	1	3	1	2	...	4	3	7				
Total for Diseases of Respiratory System ...	1322	750	572	227	189	75	69	36	25	10	10	8	4	356	297	653	11	10	5	5	9	2	9	7	20	12	50	25	60	33	99	66	93	78	34	31	4	6	394	275	669				
DISEASES OF DIGESTIVE SYSTEM.																																													
Tonsillitis, Quinsy ...	1	1		
Mouth, Pharynx Dis. (not specific)	9	7	2	3	1	1	1	4	2	6	1	
Gastric Ulcer ...	20	5	15	
Gastric Catarrh ...	10	6	4	4	1	4	1	5		
Stomach, Other Dis. (not Malign.)	36	20	16	10	3	1	...	1	12	3	15	1	...	1	
Enteritis (not Epidemic)	54	33	21	20	15	4	2	1	25	17	42	1	2	1	1	
Gastro-Enteritis ...	14	6	8	5	6	1	1	6	7	13	
Appendicitis, Perityphlitis ...	20	14	6	1	2	2	1	1	
Hernia ...	14	3	11	...	1	
Intestinal Obstruction ...	17	8	9	1	...	1	1	2	1	3	1	
Other Diseases of Intestines	6	3	3	1	...	1	2	...	2	
Peritonitis (not Puerperal)	27	12	15	2	1	...	1	4	...	4	...	1	1	2	
Cirrhosis of Liver ...	70	34	36
Liver and Gall Bladder, other Diseases ...	46	22	24	8	3	2	10	3	13	...	1	1
Digestive System, Other Diseases	18	13	5	8	2	1	9	2	11
Total for Diseases of Digestive System ...	362	187	175	62	32	9	3	4	...	3	2	78	37	115	4	4	5	3	3	6	12	14	11	10	23	20	25	21	29	20	15	6	12	...	1	109	138	247					

TABLE LIII.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.				
	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.				
LYMPH. DISEASES.																																									
Spleen Disease	
Lymph. System, other Diseases..	3	2	1	1	1	
Thyroid Body Disease ...	4	1	3	
Supra Renal Capsules Disease ...	3	...	3	
Total for Lymph. Diseases ...	10	3	7	1	1	
DISEASES OF URINARY SYSTEM.																																									
Nephritis, Acute	
Chronic Bright's Disease, Albuminuria ...	25	17	8	2	...	3	...	1	1	6	1	...	2	2	
Calculus (not Biliary) ...	152	84	68	2	...	1	...	1	4	1	...	2	1	
Bladder and Prostate Disease ...	1	...	1	
Urinary System, other Diseases..	30	27	3	1	1	
Total for Diseases of Urinary System ...	11	7	4	...	1	
DISEASES OF GENERATIVE SYSTEM.																																									
Ovarian Tumour (not Malignant)	219	135	84	3	1	5	...	2	1	1	11	3	...	2	4	
Other Diseases of Ovary ...	8	...	8	
Uterine Tumour (not Malignant)	2	...	2	
Other Diseases of Uterus and Vagina ...	2	...	2	
Disorders of Menstruation ...	1	...	1	
Generative and Mann. Organs, other Diseases...	2	...	2	
Total for Diseases of Generative System ...	17	...	17

TABLE LIII.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		TOTALS—ABOVE FIVE YEARS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.	Totls.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Abortion, Miscarriage ...	5	...	5</

TABLE LIII.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.								
	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totls.	M.	F.						
ILL-DEFINED AND NOT SPECIFIED CAUSES.																																															
Dropsy	
Debility, Atrophy, Inanition
Mortification
Tumour
Abscess
Hæmorrhage
Sudden (cause unascertained)
Other Ill-Defined and Not Specified Causes
Total for Ill-Defined and Not Specified Causes
GRAND TOTALS

TABLE LIV.—Mortality in reference to Trades, 1902.

DISEASE.	AGES AT DEATH.																																					
		Grinder.	Cutler.	Tool, Fork, and Scissors Forger.	File Cutter, Forger, and Hardener.	Engineer, Turner, Fitter, Mechanic.	Bricklayer and Bricklayer's Labourer.	Butcher.	Baker and Confectioner.	Carter, Drayman, Cab, Bus, &c., Driver.	Groom and Horsekeeper.	Engine Tender, Driver, Fireman.	Blacksmith and Blacksmith's Striker.	Furnaceman.	Steel Melter, Moulder, Puddler.	Hammerman.	Roller.	Farmer.	Gardener.	Hawker, Coster.	Joiner.	Labourer.	Mason and Builder.	Coal Miner.	Hotel Keeper, Publican, &c.	Boot and Shoe Maker.	Tailor.	Painter, Plumber, &c.	Clerk.	Merebant and Manufacturer.	Silversmith, Chaser, Engraver, &c.	Horn and Bone Cutter, Grinder.	Horn Presser.	Printer, Compositor.	General Shopkeeper.			
Diseases of the Nervous System.	Under 25	1	1	2	1
	25 & 35	..	1	1	1	1	2	1	1	..	1	
	35 & 45	..	1	1	1	1	1	3	..	1	1	..	1	
	45 & 55	1	1	1	..	1	..	2	1	1	..	4	1	1	1	1	
	55 & 65	..	2	1	1	4	1	1	1	1	
Diseases of the Respiratory System, other than Phthisis.	65 & upwards.	1	2	1	1	1	1	1	1	1	1	1	3	1	1	
	Totals	..	2	5	4	1	1	1	2	..	2	1	4	..	2	..	1	1	1	1	1	2	6	4	..	1	1	..	2	4	1	..	1	1	1	..	3	
	Under 25	1	..	1	..	1	1	3	1	1	..	2	
	25 & 35	1	3	..	2	1	..	1	1	1	1	1	6	1	1	..	1	1		
	35 & 45	2	1	2	4	..	1	1	..	6	..	1	1	..	4	1	..	1	1	..	2	3	13	1	1	..	1	3	1		
Phthisis.	45 & 55	5	8	3	3	1	4	..	1	1	..	2	..	2	1	1	14	2	2	..	2	..	2	..	2	..	3	1	1		
	55 & 65	10	3	6	5	3	..	1	2	5	..	2	4	..	2	1	1	..	..	..	2	19	5	2	3	3	2	..	1	2	1	..	..	..	6
	65 & upwards.	3	13	7	6	4	..	..	1	..	3	4	..	1	2	1	2	1	2	2	3	5	25	7	4	..	2	2	4	2	1	..	1	1	2	
	Totals	..	21	28	19	20	9	1	3	2	17	..	7	10	4	8	3	5	4	2	5	11	80	17	8	5	6	6	5	14	4	6	1	..	1	10		
	Under 25	..	2	..	..	1	..	..	1	..	..	2	..	..	..	..	..	..	..	1	..	4	..	..	..	..	..	1	..	..	..	..	..	1	2
Diseases of the Urinary System.	25 & 35	13	5	2	1	..	1	..	2	..	2	..	..	..	..	..	2	..	..	..	2	7	2	2	1	..	..	..	4	1	5	2	..	..	3
	35 & 45	16	5	5	6	2	2	..	2	..	1	6	1	2	..	1	2	..	2	1	9	6	2	1	..	2	4	1	4	1	1	1	1	1	1			
	45 & 55	21	4	4	1	2	4	..	2	..	3	4	2	2	1	2	..	..	..	2	10	6	1	..	3	..	1	3	1	..	1	1	2		
	55 & 65	10	4	4	1	..	1	..	..	..	..	1	..	1	1	1	1	1	1	1	2	8	3	1	..	1	..	1	..	1	..	1	2		
	65 & upwards.	..	2	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	2	2	2	2	..	1	..	..	..	..	..	1	..		
Diseases of the Circulatory System.	Totals	..	60	20	17	9	5	7	1	7	..	4	15	3	6	1	7	3	..	4	7	40	19	6	2	..	7	9	3	13	4	2	4	10				
	Under 25	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	25 & 35	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	35 & 45	1	1	2	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	1	2	..	..	..	..	..	..	..	..	..
	45 & 55	1	4	1	2	2	..	..	..	..	..	..	..	..	..	1	..	..	..	3	7	1	..	..	1	..	5	..	1	..	1	..	1		
Diseases of the Digestive System, other than Liver.	55 & 65	..	3	1	..	..	..	1	..	1	..	1	..	2	1	1	1	1	1	2	5	1	..	..	1	1	2	..	1	..	1	..	..	2	
	65 & upwards.	..	4	5	2	1	1	..	..	..	1	1	2	1	..	2	5	..	..	2	5	..	1	..	1	..	2	1	..	..	..	..	..	..	..
	Totals	..	2	8	11	7	5	1	1	1	1	1	2	1	4	3	2	1	2	1	7	19	2	1	..	1	3	3	9	1	2	..	1	..	3			
	Under 25	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	1	..	1	..	..	..	..	..	..
	25 & 35	1	1	..	..	..	..	..	2	..	..	..	..	..	..	1	..	1	..	..	1	2	..	..	..	1	1	3	..	1	..	..	..	..	..
Diseases of the Liver.	35 & 45	3	4	1	2	3	..	3	4	1	..	..	..	1	..	1	..	1	..	1	2	1	1	..	1	1	1	3	2	2	..	..	..	2	
	45 & 55	1	3	6	2	1	3	1	3	1	2	4	1	1	1	1	1	1	2	4	15	3	..	2	1	1	4	5	2	1	1	..	5					
	55 & 65	4	6	9	7	10	..	3	4	1	..	6	..	4	1	3	..	1	..	4	19	2	..	3	3	2	3	7	1	1	4	..	4					
	65 & upwards.	4	6	10	5	5	1	1	2	7	1	1	9	..	7	2	1	4	2	2	12	30	2	3	1	6	4	3	9	12	7	1	1	10				
	Totals	..	13	20	26	16	19	4	8	2	21	4	3	19	1	13	3	6	5	4	4	21	70	8	4	6	12	7	9	27	20	13	3	6	21			
All other Causes.	Under 25	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	25 & 35	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	35 & 45	1	4	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..
	45 & 55	..	1	..	1	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	4	..	1	..	1	..	1	
	65 & upwards.	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1	..	..	..	..	1	..	1	1		
All Causes.	Totals	..	2	5	..	2	..	3	..	2	..	2	1	1	..	3	..	1	..	1	4	2	1	2	..	..	5	3	1	1	..	1	2			
	Under 25	..	1	3	..	1	..	..	2	..	..	2	..	..	2	3	..	..	..	..	1	1	1	..	..	1	1	..	2	2	..	..				

WORKSHOPS INSPECTION.

The Factory and Workshops Act, 1901 came into operation on January 1st, 1902, so far as it affects workshops under the supervision of the Sanitary Authority. As has already been reported to you this Act confers on the Sanitary Authority certain additional powers in regard to workshops.

It has created or continued many anomalous conditions, and it is on account of these anomalous conditions in the past that Sanitary Authorities have to a large extent felt bound to leave the Workshops Acts unworked. Even at the present time it is very desirable that all matters relating to general sanitation should be dealt with by the Sanitary Authority, whether in a workshop or in a factory. There is no doubt however that the Act of 1901 does give greater power to the Sanitary Authority, and in Sheffield this has been recognised and has been acted on. Two additional Inspectors have been appointed to carry out the Act, there being now two male Inspectors and one woman Inspector. The time of these Inspectors has been very largely occupied in the work of registering of workshops, with the attendant duties of enquiries and measurements which have to be made. During the year 1902, the registering of all workshops has been completed. So far, however, nothing has been done in the way of keeping a list of *workplaces*, which apparently is contemplated in the Act, but not specifically mentioned.

In the Table LV. is set out a list showing the total number of workshops, grouped according to trades, etc. Each of these workshops has been visited at least once during the year. In future years our present staff will probably be able to visit at least twice each year. In Table LVI. is set out the number of notices which have been given for various purposes during the year, 1902; the number of verbal instructions for various defects are not recorded. Among the most important work which is being done in Sheffield, is the remedying of the very insanitary conditions which exist in many workshops and factories, as regards privies. The regulation of closet accommodation at workshops is a difficult one. The popular idea is that something far inferior to what one would have at home is sufficiently good for a workshop; and in many cases the privies at our Sheffield workshops are extremely bad. By systematically seeing the privies at workshops, the worst of these are rapidly being done away with, and water-closets substituted. More important than the above, is the condition of closet accommodation in factories. Here again the most filthy and insanitary arrangements are allowed to exist in many cases, and even in instances where owners of workshops or factories have gone to the expense of providing efficient water-closets, the value of these has been greatly discounted by the fact that no arrangements have been made by the owners for the systematic inspection and cleansing of the closets. To any person who has regularly visited factories or workshops, one of the necessities most obvious is that the closets shall be put under the supervision of one responsible person, and shall be kept at all times in a clean and sanitary condition. Many owners do not recognise the fact that where a large number of persons use closets in common, filthy conditions are very liable to occur, as not one of the users is likely voluntarily to clean the closets. The large amount of work done in recent years in the conversion of privies into water-closets in cottage property in Sheffield has had a beneficial influence on the use of water-closets in factories and workshops, in that the people know better how to use them.

TABLE LV.

TOTAL NUMBER OF WORKSHOPS AND WORKPLACES ON THE REGISTERS.								
Number of Workshops	...	...	...	...	...	...	...	2,309
Number of Workplaces	...	...	...	...	...	...	...	446
Domestic Workshops	...	...	...	...	...	...	...	62
					Total	...	...	2,817

CLASSIFICATION OF TRADES.

Number of Bakehouses, Confectioners, &c.	...	...	...	...	247
Number of Tailors, Dressmakers, &c.	...	...	...	...	672
Joiners, Upholsterers, &c.	...	...	...	...	239
Forgers, Cutlers, Filecutters, Engravers	...	...	...	...	1,226
Miscellaneous Trades, &c.	...	...	...	...	433
					<hr/>
	Total	...	...	...	2,817

TABLE LVI.

DETAILS OF WORK DONE BY THE WORKSHOP INSPECTORS FOR THE YEAR ENDING
DECEMBER 31ST, 1902.

Total Number of Visits and Revisits	...	...	...	...	...	7,748
„ „ Inspections of Workshops	...	...	...	...	...	6,272
„ „ „ Bakehouses and Confectioners	...	...	...	...	...	752
„ „ „ Factories	...	...	...	...	...	345
„ „ Notices Served	...	...	...	...	...	199
„ „ „ <i>re</i> Workshops	...	...	...	...	...	140
„ „ „ <i>re</i> Bakehouses	...	...	...	...	...	14
„ „ „ <i>re</i> Factories	...	...	...	...	...	26
„ „ Cases of Overcrowding	...	...	...	...	...	14
„ „ „ Structural Defects	...	...	...	...	...	89
„ „ Special means of Ventilation provided	...	...	...	...	...	75
„ „ Accumulations of Refuse Removed	...	...	...	...	...	18
„ „ W.c.s Repaired and Cleansed	...	...	...	...	...	45
„ „ Unsuitable and Insufficient Closet Accommodation dealt with	...	...	...	...	...	28
„ „ Separate W.c.s provided for females	...	...	...	...	...	24
„ „ Animals improperly kept...	...	...	...	...	...	6
„ „ Other Sanitary Defects	...	...	...	...	...	114
„ „ Letters and reminder Notices to Owners and Occupiers						
„ „ „ <i>re</i> Limewashing, Cleansing, &c.	...	...	...	...	...	142
„ „ Reports to the Medical Officer	...	...	...	...	...	162
„ „ Interviews with Owners and Agents	...	...	...	...	...	197
„ „ Complaints received from H.M. Inspectors	...	...	...	...	...	85
„ „ Other complaints	...	...	...	...	...	6
„ „ Reports to H.M. Inspector <i>re</i> young persons, &c.	...	...	...	...	...	60
„ „ „ other Departments	...	...	...	...	...	36
Total	...	...	...	...	...	16,597

In a similar way the general idea is that the drainage arrangements at a workshop need not have so much attention paid to them as the drainage arrangements of a dwelling-house ; and in the course of visiting one is struck by the very bad drainage arrangements which exist.

A point which appears to be of great importance in both factories and workshops is the necessity for a systematic and proper cleansing of the floors and woodwork. In the case of many tailors' workshops it is the custom to spit on the floor—a floor which is seldom washed from one year's end to the other. Exactly the same conditions exist in many hundreds of other workshops, and people who live in good and sanitary houses, and who have to work in places where they are liable to breathe dust which is derived from dried and ground-up spit, are exposing themselves to serious danger, with an idea that they are not liable to be damaged at the workshop, while they would be damaged by the insanitary condition at their homes. During 1902 cards were supplied to the workshop inspectors for distribution among the occupiers of workshops, setting forth the danger of spitting on the floors. Such cards were nailed to the wall in conspicuous places, and will, in time, have a beneficial influence in preventing the filthy habit.

There are in Sheffield a certain number of underground workshops, where men have to work from 8 to 10 hours per day, in a dull, gloomy light. Such workshops would not be permitted to be occupied as cellar dwellings, and it is rather difficult to see why the same rooms should be used all day long as workrooms, to the great detriment of the persons working therein. Unfortunately it is impossible to get statistics to prove the damage which such cellars give rise to, because it is seldom that one workman will work in any of these underground workshops for many years ; but that they constitute a real danger to health is undoubted.

The ventilation of workshops has been a matter of considerable difficulty during the year. Nothing has been done in regard to file-cutting shops for reasons set forth hereafter, but in many other workshops means of ventilation have been provided where none previously existed. The

ordinary idea is that an open window is all that is required for ventilation purposes in a workshop. In warm weather in summer time this is undoubtedly correct, but perhaps during eight months of the twelve, an open window is almost an impossible condition in many workshops. In the great majority of these, the occupants have to work opposite the window, and with an open window such a draught is occasioned, that they very rightly close the window, to prevent catching cold, and perhaps more serious illness. It therefore becomes necessary to have workshops ventilated by means of specially fitted ventilators. What we have found to be most effective in the smaller workshops is the provision of inlet ventilators of the type of Sheringham valve, and certain outlet ventilators. It seems to be most important that the inlet should be protected, so as to prevent down-draughts, and that they should be numerous and small, so that the incoming air is well distributed. The Act of 1901 specially exempts workshops where only males are employed from any of the provisions relating to ventilation. Why this should be so is rather hard to understand, as obviously, if ventilation is of any value, it is as useful for men as for women and young persons.

OUT-WORKERS.

A large amount of time has been occupied by the Inspectors in dealing with the lists of out-workers sent in by various firms. The utility of this work is scarcely obvious. One of the ideas which apparently the framers of the section had, was that by visiting the houses where out-workers were employed, the Inspector might be able to ascertain whether their work was being carried on in houses where such infectious diseases as Small-pox and Scarlet Fever existed. This may have been a good arrangement in the years prior to the Notification of Infectious Diseases' Act, but nowadays it is questionable whether an Inspector during such a visit would be able to diagnose a case that had not already been reported to the Sanitary Authorities. So far as can be ascertained in Sheffield, no very good results can follow from this work, but it is too early yet to express anything more than a tentative opinion. In the following table is set out the work done under this heading. In Sheffield the majority of out-workers are employed in workshops which have already been registered. In such cases they were not specially visited.

TABLE LVII.—*Outworkers.*

No. of firms returning lists	...	...	...	...	...	...	249
Trades in which outworkers are employed, and the number employed in each trade :—							
Cabinet Making ...	...	...	...	...	...	...	5
Electro Plate Workers ...	...	...	...	...	...	...	1505
Filecutting ...	...	...	...	...	...	...	1822
Upholstering ...	...	...	...	...	...	...	2
Wearing Apparel ...	...	...	...	...	...	...	300
							3634

Attached is a report from Mrs. Franks, on her visits to the various home-workers in Sheffield and the conditions which she found.

HOME-WORKERS.

Since my appointment as Workshop Inspector in May, I have visited all home-workers returned to us by firms in the scheduled trades.

Almost half the addresses given were incorrect or insufficient; whilst many returns were not sent in at all in the first instance.

The following are the trades visited :—*Filecutting, Tailoring and Shirtmaking, and Electro Plate Workers.*

I.—FILECUTTING.

Number of houses visited	...	...	...	...	...	187
„ persons employed	...	...	...	...	...	207

The comparison between the cleanliness of these homes and houses of the same class where no work other than domestic is carried on, is a most favourable one. In five instances women were found to be suffering from lead poisoning—in one case in a very acute form. In a good many cases the women appeared to be anæmic and ill-looking, notwithstanding that their homes were clean.

II.—TAILORING AND SHIRTMAKING.

Number of houses visited ...	...	...	...	...	...	...	33
„ persons employed	...	...	...	...	...	...	53

I find there is no sweating in these particular trades; for although the work is done intermittently, a better price is paid than in the shops. I found one case of infectious disease, but work had already been suspended, and the case notified under the Infectious Diseases Notification Act.

III.—ELECTRO PLATE WORKERS.

Number of houses visited ...	...	...	...	...	...	...	28
„ persons employed	...	...	...	...	...	...	39

The homes of these workers were very satisfactory, and the workers self-respecting and industrious.

GERTRUDE FRANKS,
INSPECTOR.

During the year 1902 the Health Committee again considered the special report on file-cutting workshops, and as apparently no action was being taken in regard to these very insanitary workshops, on March 13th, 1902, they resolved to send a deputation to the Home Secretary, urging him to deal with this trade as a dangerous trade. On March 19th a deputation waited upon Sir Kenelm Digby and other officers of the Home Office, and received a most courteous hearing.

In order to complete the history of this movement, part of the work done during the year 1903 is here included. The Home Secretary notified that he had appointed Mr. Chester Jones, Barrister-at-Law, to hold an enquiry, as a number of objections had been lodged against the proposed new regulations issued by the Home Office. After a long and patient hearing at Sheffield and Birmingham Mr. Chester Jones modified certain of the original regulations of the Home Office, as set out below:—

DRAFT REGULATIONS.

OCTOBER, 1902.

1.—AIR SPACE.

The number of stocks in any room shall not be more than one stock for every 350 cubic feet of air space in the room, and in calculating air space for the purpose of this regulation, any space more than 10 feet above the floor of the room shall not be reckoned.

2.—DISTANCE. BETWEEN STOCKS.

The distance between the stocks, measured from the centre of one stock to the centre of the next, shall not be less than 4 feet, provided that this regulation shall not take effect until the 1st day of January, 1904.

3.—FLOORS.

Every room shall have a substantial floor, the whole of which shall be covered with wood, concrete, or other washable material, except a space of 6 inches wide round the base of each stock.

The floor of every room shall be kept in good repair.

REGULATIONS EMBODYING
ALTERATIONS.

TO COME INTO FORCE SEPTEMBER 1st, 1903.

1.—AIR SPACE.

Adopted.

2.—DISTANCE. BETWEEN STOCKS.

After the 1st day of January, 1904, the distance between the stocks, measured from the centre of one stock to the centre of the next, shall not be less than 2 feet 6 inches, and after the 1st day of January, 1905, the said distance shall not be less than 3 feet.

3.—FLOORS.

Every room shall have a substantial floor, the whole of which shall be covered with a washable material, save that it shall be optional to leave a space not exceeding 6 inches in width round the base of each stock.

The floor of every room shall be kept in good repair.

4. - VENTILATORS.

Efficient inlet and outlet ventilators shall be provided in every room. The inlet ventilators shall be so arranged and placed as not to cause a direct draft of incoming air to fall on the workmen employed at the stocks.

The ventilators shall be kept in good repair, and in working order.

5.

No person shall interfere with or impede the working of the ventilators.

6.—WASHING CONVENIENCES.

Sufficient and suitable washing conveniences shall be provided and maintained for the use of the file-cutters. The washing conveniences shall be under cover, and shall comprise at least one fixed basin for every ten or less stocks, each basin being fitted with a waste-pipe, and having a constant supply of water laid on.

7. - LIMEWASHING.

The walls and ceiling of every room, except such parts as are made of wood or glazed brick, shall be limewashed in the first week of June and December in every year.

8.—WASHING OF FLOORS, &C.

The floor, and such parts of the wall and ceiling as are not limewashed, and the benches, shall be washed once a week, and such parts of the wall and ceiling as are limewashed shall be brushed down once a month.

9.—WORK IN DWELLING HOUSES.

If the factory or workshop is situated in a dwelling-house, the work of file-cutting shall not be carried on in any room which is used as a sleeping place, or for cooking or eating meals.

10.- CLOTHING.

Every file-cutter shall, when at work, wear a long apron reaching from the shoulders and neck to below the knees; the apron shall be kept in a cleanly state.

4.—VENTILATORS.

Adopted.

5.

Adopted.

6.—WASHING CONVENIENCES.

Sufficient and suitable washing conveniences shall be provided and maintained for the use of the file-cutters. The washing conveniences shall be under cover, and shall comprise at least one fixed basin for every ten or less stocks. Every basin shall be fitted with a waste-pipe discharging over a drain, or into some receptacle of a capacity at least equal to one gallon for every file-cutter using the basin. Water shall be laid on to every basin either from the main or from a tank of a capacity of not less than $1\frac{1}{2}$ gallons to every worker supplied from such tank. A supply of clean water shall be kept in the said tank while work is going on at least sufficient to enable every worker supplied from such tank to wash.

7.—LIMEWASHING.

The walls and ceiling of every room, except such parts as are painted or varnished, or made of glazed brick, shall be limewashed once in every 6 months ending the 30th of June, and once in every 6 months ending the 31st of December.

8.—WASHING OF FLOORS, &C.

The floor, and such parts of the walls and ceiling as are not limewashed, and the benches, shall be cleansed once a week.

9.—WORK IN DWELLING HOUSES.

Adopted.

10.—CLOTHING.

Adopted.

11.—POSTING OF REGULATIONS.

A copy of these regulations, and an abstract of the provisions of the Factory and Workshop Act, 1901, shall be kept affixed in the factory or workshop in a conspicuous place.

12.—DUTIES OF OWNERS AND OCCUPIERS, &C.

It shall be the duty of the occupier to carry out Regulations 1, 2, 3, 4, 6, 7, and 11, except that in any room in a tenement factory, or tenement workshop, which is let to more than one occupier, it shall be the duty of the owner to carry out these Regulations.

It shall be the duty of the occupier or occupiers to carry out Regulation 8.

It shall be the duty of the occupier or occupiers, and of every workman, to observe Regulations 5, 9, and 10.

These Regulations shall come into force on the 1st day of January, 1903.

HOME OFFICE,
WHITEHALL.

11.—POSTING OF REGULATIONS.

Adopted.

12.—DUTIES OF OWNERS AND OCCUPIERS, &C.

It shall be the duty of the occupier to carry out Regulations 1, 2, 3, 4, 6, 7, and 11, except that in any room in a tenement factory, or tenement workshop, which is let to more than one occupier, it shall be the duty of the owner to carry out these Regulations, except the last clause of Regulation 6, which shall be carried out by the occupiers. It shall be the duty of the occupier or occupiers to carry out Regulation 8.

It shall be the duty of the occupier or occupiers, and of every workman, to observe Regulations 5, 9, and 10.

These Regulations shall come into force on the 1st day of September, 1903.

GENERAL SANITARY WORK.

In the following table is set out a statement of the work done by certain of the Sanitary Inspectors during the year. It is impossible to indicate by figures accurately what this work amounts to. For instance, one smoke test may occupy in one case two hours of an Inspector's time, while in another case it may occupy two or three days. The Table is, however, useful as indicating the kind of work the general Inspectors are engaged in.

GENERAL SANITARY WORK.

TABLE LVIII.—*Summary of Work done by Inspectors of Nuisances during the year 1902.*

HOUSE INSPECTION.				No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	TOTAL.
1	Premises examined on account of	Infectious Disease ...	...	839	1925	1712	1524	2344	8344
2		House to house work...	...	...	17	248	39	131	435
3		Dilapidated buildings..	...	50	116	307	317	66	856
4		Defective drainage ...	...	271	402	645	271	398	1987
5		Other nuisances ...	...	433	771	968	2078	1484	5734
6	Total number of premises examined ...			1593	3231	3880	4229	4423	17356
7	Premises where sanitary defects were found			754	1109	1802	2541	1935	8141
DETAILS OF WORK DONE.									
8	Inspections of drainage work			2690	1544	1604	1175	1682	8695
9	,, ,, repairs to dwellings			36	225	403	1142	357	2163
10	Inspections of other work not specified			1269	1804	793	326	1227	5419
11	Application of smoke test			296	16	10	10	38	370
12	,, ,, water test			501	247	523	88	476	1835
13	,, ,, other tests			126	63	131	32	139	491
14	Special examination and report			139	20	27	35	44	265
15	Privy-midden conversion report			92	129	284	215	135	855
16	Visits to premises in regard to which notice has been served			1479	1277	2831	3152	2064	10803
17	Interviews with owners or agents respecting work			314	300	272	869	573	2328
18	Notices served personally			54	260	256	102	283	955
19	,, ,, by post... ..			271	351	579	642	436	2279
20	Reminder letters served ... ..			...	4	24	23	23	74
21	Cases reported for summoning			72	72	150	100	117	511
22	Infectious disease reported on	Cholera ... ..	...	...	...	...	...	...	...
23		Small Pox ... ..	...	...	10	7	...	3	20
24		Diphtheria ... ..	...	127	215	243	140	211	936
25		Scarlet Fever... ..	...	204	412	246	300	375	1537
26		Enteric Fever... ..	...	32	96	101	93	92	414
27	Puerperal Fever			4	5	6	15	5	35

TABLE LVIII.—GENERAL SANITARY WORK.—*Continued.*

DETAILS OF WORK DONE.				No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	TOTAL.
28	Infectious disease reported on	Erysipelas ...	...	31	51	87	66	126	361
29		Measles ...	...	319	925	685	579	1301	3809
30		Whooping Cough ...	...	20	61	76	83	46	286
31		Chicken Pox ...	...	92	208	181	111	297	889
32		Other diseases ...	...	90	226	227	296	119	958
33	Additional visits to houses for	Infectious disease		388	1622	1394	1178	2422	7004
34		Disinfecting ...		310	625	581	496	672	2684
NUISANCES.									
1	Dwelling-houses unfit for human habitation, with report ...			...	...	2	1	3	6
2	Houses dirty ...			...	4	2	5	7	18
3	,, overcrowded ...			...	10	15	14	21	60
4	Premises damp or dilapidated...			17	84	145	460	93	799
5	,, with defective roof, eave-gutter, or spouting ...			58	173	306	604	272	1413
6	,, with insufficient or defective drainage ...			268	229	423	250	406	1576
7	,, with closets or drains tempo- rarily choked ...			170	285	218	598	440	1711
8	,, with defective sanitary appli- ances ...			118	85	75	249	113	640
9	,, with insufficient closet accom- modation ...			1	9	...	29	10	49
10	,, with dirty closets ...			5	10	26	11	62	114
11	,, with ashpits requiring emptying			25	133	111	160	110	539
12	,, with defective, or want of, yard paving ...			23	29	72	193	97	414
13	,, without sufficient water supply			4	...	...	4	...	8
14	,, with water in cellars ...			13	43	56	123	92	327
15	Offensive accumulations ...			8	36	31	45	55	175
16	Animals kept as to be a nuisance ...			2	5	26	28	9	70
17	Street gullies choked ...			7	29	51	26	28	141
18	Sewers choked or defective ...			2	16	23	26	18	85
19	Dilapidated privy-midden ...			25	106	279	127	21	558
20	Want of manure receptacle ...			1	6	4	4	7	22
21	Dangerous buildings ...			...	7	5	11	5	28

TABLE LVIII.—GENERAL SANITARY WORK.—*Continued.*

NUISANCES.	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	TOTAL.
22 Offensive urinals	2	7	6	4	6	25
23 Other nuisances	2	65	156	76	74	373
24 Unfounded complaints... ..	3	118	103	57	66	347
NUISANCES ABATED.						
1 (a) Dwelling-houses rendered fit for human habitation ... ..	...	...	...	1	1	2
(b) Ditto closed... ..	...	...	2	...	1	3
2 Houses cleansed ... ..	...	4	2	5	7	18
3 Overcrowded houses dealt with ... ..	...	10	14	10	20	54
4 Premises repaired	19	161	149	450	90	869
5 Defective roof, spouting, &c., repaired	44	366	307	553	270	1540
6 { Drains disconnected from sewer	10	23	53	84	64	234
,, ventilated	14	20	...	29	16	79
7 { ,, repaired or cleansed	336	411	390	486	525	2148
,, reconstructed	67	71	188	86	232	644
8 Sanitary appliances repaired	69	85	79	239	111	583
9 Closet accommodation increased	1	20	...	...	90	111
10 Closets lime-washed	6	10	28	11	59	114
11 Full ashpits reported to Cleansing Supt.	20	133	111	160	110	534
12 Yards paved or repaired	18	46	106	181	87	438
13 Houses supplied with town's water ..	3	...	...	...	...	3
14 Water removed from cellars	9	43	51	102	70	275
15 Offensive accumulations removed	5	36	26	37	46	150
16 Removal of animals improperly kept...	2	5	21	23	8	59
17 Street Gullies... { Cleansed ... ..	...	...	15	...	16	31
{ Reported to Cleansing Superintendent	2	29	35	26	12	104
18 Sewers reported to City Surveyor	2	16	23	...	18	59
19 Privy-middens repaired	20	25	25	7	13	90
20 Manure receptacle provided	2	6	4	3	4	19
21 Dangerous buildings reported to City Surveyor ... ..	...	7	5	...	5	17
22 (a) Offensive urinals abolished ... ..	...	3	2	3	3	11
(b) Proper urinals provided ... ..	...	4	2	3	3	12

TABLE LVIII.—GENERAL SANITARY WORK.—*Continued.*

NUISANCES ABATED.	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	TOTAL.
23 Other nuisances abated	5	65	147	76	65	358
24 Privies converted into trough closets ...	...	...	...	4	7	11
25 „ „ cottage „ ..	16	60	1	209	309	595
26 New water-closets provided	18	25	3	33	17	96
Proceedings taken	1	6	6	2	13	28

WOMEN INSPECTORS' WORK.

A very rough idea is given below as to the work done by five of our Women Inspectors who are engaged in general sanitary work. Such daily routine work has already had a splendid influence for good in many districts of the City. The work is, however, of an exceedingly difficult character, and the personality of the Inspector goes for a great deal more in obtaining effective results than does the actual amount of work done, or legal power which the Inspector possesses. Again the work is of a very monotonous character, and from this fact alone is apt to be less effective. Speaking generally, the functions of the Women Inspectors are to see that a proper amount of cleanliness is observed in the homes of the poorer working classes, and that reasonable care is being exercised in the feeding and rearing of young infants.

TABLE LIX.—*Summary of Work done by the Women Sanitary Inspectors during 1902.*

Total number of premises visited or re-visited	24,762
Instructions given as to cleansing, whitewashing, and ventilation of houses ...	9,521
Instructions given as to clothing and feeding of children	3,394
Instructions given as to other unhealthy conditions	3,826
Visits of enquiry with regard to Diarrhœa deaths	194
Reports referred to the District Inspectors and other departments	5,022
Cases referred to the National Society for the Prevention of Cruelty to Children	84
Number of Notices served	524

THE BLACK SMOKE NUISANCE.

Nothing very unusual took place in regard to the work of preventing excessive emissions of black smoke during the year 1902. While this is the case, it will be noted from the observations made that the total number of observations, each of an hour's duration, was rather higher last year than in previous years. It will be also noted that the number of cases with regard to which proceedings were taken exceeded in number those in previous years, and that the average amount of penalty in each case was above the average for the preceding 10 years. One case, in regard to which an appeal was made to the Quarter Sessions, has not been decided at the time of writing this Report, owing to repeated delays from one cause or another at Quarter Sessions. The case in question, however, was of a very important character in view of the fact that the Sheffield Manufacturers' Association asked that in several other cases proceedings should be held over until this one was decided. In the case in question boiler furnaces and metallurgical furnaces for steel

purposes, were connected to a single chimney, which emitted black smoke for long periods of time. The contentions on the part of the defendants were chiefly that the smoke came from the metallurgical furnaces, over which the City Council have no control, and that it was preferable to discharge such smoke by means of a tall chimney, rather than by means of a number of very short chimneys which would allow the smoke to beat down on the people in the neighbourhood. The main argument which the Health Committee had in view in deciding to take proceedings, was that from repeated observations, extending over long periods of time, the average amounts of black smoke from this chimney were very much less than those on which proceedings were now being taken ; that is to say, that the black smoke, whether from the boilers or the metallurgical furnaces, was unnecessarily large in amount.

It will probably be found in future, that in dealing with such chimneys, it will be important to have, under any given set of conditions, a basis to go on similar to that which the Corporation had in this case.

During the year 1902, the three Smoke Inspectors made 7,466 observations, each of one hour's duration, as against 7,198 in the previous year, and 7,399 in 1900.

The average number of minutes of black smoke during the year was 3·2 per hour, as against 2·7 and 2·3 in the previous years. It is probable that this higher average is due entirely to the larger number of observations made on chimneys having metallurgical furnaces attached to them. In 132 cases the amount of smoke emitted during the hour's observation was considered to be excessive, and notices under Section 91 of the Public Health Act were served, while in the previous year it was found necessary to serve 105 of such notices.

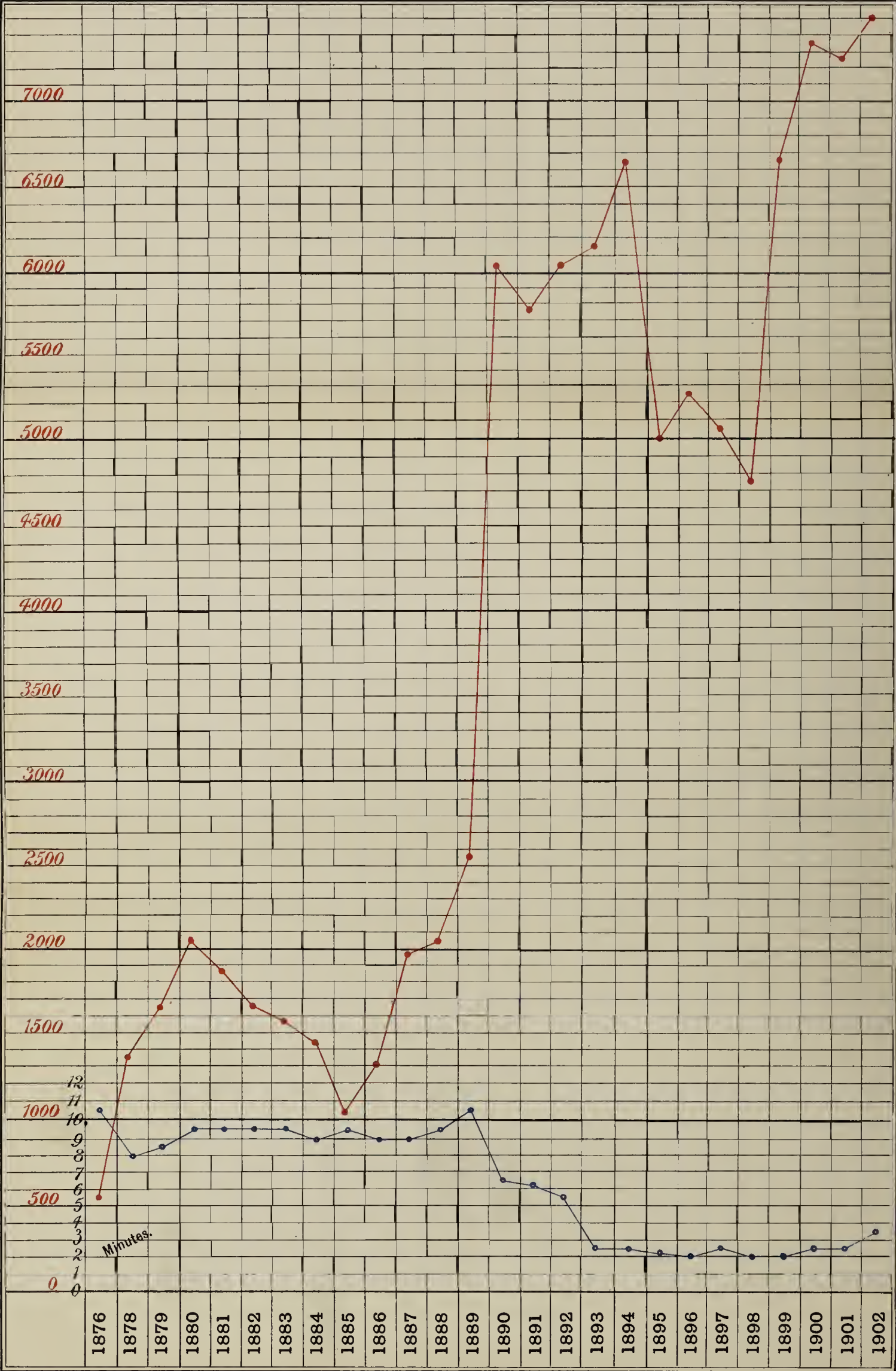
In the following table are shown the particulars of proceedings taken since 1890.

TABLE LX.—Summary of Smoke Nuisance proceedings, 1890-1902.

YEAR.	Number of Proceedings.	Total Penalties and Costs.			Average Penalties and Costs.		
		£	s.	d.	£	s.	d.
1890	...		...			...
1891	...		...			...
1892	7	10	0	0	1	8	6
1893	1	0	8	0	0	8	0
1894	5	4	12	0	0	18	4
1895	9	5	6	0	0	11	9
1896	21	57	0	0	2	14	3
1897	3	8	14	0	2	18	0
1898	6	10	12	0	1	15	4
1899	18	28	0	0	1	11	1
1900	14	15	0	0	1	2	5
1901	30	74	18	11	2	9	11
1902	32	84	5	0	2	12	7

Chart G.

Showing yearly number of Observations of Boiler Chimneys of one hour's duration; also the Average number of Minutes of Black Smoke.



No. of
Observation

Minutes.

TABLE LXI.—*Proceedings in regard to Smoke Nuisances during 1902.*

Date.	Nature of Works.					Results.
1902.						
Jan. 28	Engineers	...	...	...	...	Order and costs.
Feb. 13	Steel Manufacturers	...	...	...	...	Fined £2 and costs.
April 22	Do.	do.	...	...	...	Order and costs.
" 22	Do.	do.	...	...	...	Do. do.
" 24	Do.	do.	...	...	...	Fined £1 10s. 0d. and costs.
" 24	Do.	do.	...	...	...	Do. £3 10s. 0d. do.
" 30	Steel Rollers, &c.	...	...	...	...	Do. £6 and costs.
May 5	Steel Manufacturers	...	...	...	...	Order and costs.
" 13	Electro Platers	...	...	...	...	Do. do.
" 22	Boot Manufacturers	...	...	...	...	Fined £5, order, and costs.
July 17	Confectioners	...	...	...	...	Do. £2 and costs.
" 17	Brewers	...	...	...	...	Order and costs.
" 31	Steel Manufacturers	...	...	...	...	Fined £10 and costs.
Aug. 7	Do.	do.	...	...	...	Do. £5 do.
" 28	Cutlery Manufacturer	...	...	...	...	Do. £2, order, and costs.
Sept. 4	Brewers	...	...	...	...	Do. £2 and costs.
" 11	Ironfounders	...	...	...	...	Do. £3 do.
" 25	Steel Rollers	...	...	...	...	Order and costs.
" 25	Brewers	...	...	...	...	Fined £2 and order.
Oct. 14	Brickmakers	...	...	...	...	Order and costs.
" 14	Engineers	...	...	...	...	Fined £5 and order.
" 14	Steel Manufacturers	...	...	...	...	Order and costs.
" 30	Cutlery do.	...	...	...	...	Fined £2 and costs.
" 30	Brickmaker	...	...	...	...	Do. £2 do.
Nov. 6	Boiler Makers	...	...	...	...	Order and costs.
" 11	Cutlery Manufacturers	...	...	...	...	Fined £4 10s. 0d. and costs.
" 27	Steel do.	...	...	...	...	Do. £1, order, and costs.
" 27	Builder	...	...	...	...	Do. £1 do. do.
Dec. 11	Steel Manufacturers	...	...	...	...	Do. £5 and costs.
" 11	Brickmakers	...	...	...	...	Do. £2 do.
" 11	Brewers	...	...	...	...	Do. £3 do.
" 18	Chemical Manufacturers..	...	...	...	...	Do. £2 do.

TABLE LXII.—*Details of Work done by Smoke Inspectors during 1902, and during the previous ten years:—*

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Number of observations upon Chimneys of each one hour ...	6000	6157	6686	4935	5201	5038	4778	5667	7399	7198	7466
Average Number of Minutes of Black Smoke per hour ...	5·2	2·8	2·8	2·1	2·2	2·25	2·06	2·08	2·3	2·7	3·2
Number of Notices served ...	97	81	125	72	100	89	101	145	104	105	132
Number of Complaints received..	32	23	23	22	22	27	25	33	16	28	41
Number of New Boilers put down	15	31	19	9	30	32	7	16	28	30	27
Number of Chimneys erected ...	15	10	17	5	18	16	4	17	23	9	12
Number of Chimneys raised ...	15	9	5	6	9	15	6	7	5	7	5
Furnaces re-erected or re-arranged	7	6	24	41	41	44	46	36	14	12	17
Appliances or Improvements introduced	117	34	38	52	81	49	46	36	14	12	17

TABLE LXIII.—SMOKE ABATEMENT.

Number of Chimney.	Boilers and Furnaces attached.	Minutes for which notice was served.	Smoke Consumer on when the Notice was served.	Remarks.
64	2 Boilers	19	British smoke approved..	Proved unsatisfactory.
65	2 Boilers and 2 Furnaces	15	Grids	
158	2 Boilers	25½	Grids	Put in hollow bridges.
L.R. 7	1 Boiler	17½	Steam jets	Put glasses up to see chimney
47	1 Boiler	14½	Grids	Plenty of boiler room.
L.S.A. 137	1 Boiler	7	Hollow bridges	Automatic apparatus unsatisfactory.
S.P. 177	1 Boiler	10	Grid	Burning coke
172	1 Stove	3		Burning coke.
R.M. 100	3 Boilers	14	Grids	Plenty of boiler room.
F.C.C. 46	6 Boilers and 2 Furnaces	29	Steam jets	Plenty of boiler room.
49	2 Boilers	17	Oates' apparatus	Plenty of boiler room.
30	1 Boiler	8	Blank doors	Old cylinder boiler.
141	1 Boiler and 2 Coppers...	7	Blank doors	Careless stoking.
76	2 Boilers and 1 Furnace	13	Grids	Careless stoking.
L.S. 1	2 Boilers	9	Grids	Careless stoking.
L.S.C. 178	3 Boilers and 4 Furnaces	10	Hollow bridges	Careless stoking.
L.S.A. 178	3 Boilers and 2 Furnaces	16	Hollow bridges	Careless stoking.
R.B.C. 16	3 Boilers	16	Forced draught	Careless stoking.
S.B. 7	1 Boiler	13	Forced draught	Careless stoking.
C.C. 7	1 Copper	8	Blank doors	Erected glasses to see chimney
L.S. 24	1 Boiler and 4 Furnaces	12	Grid	
L.S. 145	2 Boilers and 4 Kilns ...	8½	Blank doors	Careless stoking.
32	1 Boiler and 1 Copper ...	32	Grid	Careless stoking.
126	1 Boiler	7	Grid	Put on automatic door.
73	1 Boiler	3½	Grid	Careless stoking.
S.P.C. 179	2 Boilers	7	Grid	Careless stoking.
21	1 Boiler and 1 Furnace...	10½	Grid	Careless stoking.
128	1 Boiler and 1 Kiln ...	19	Hollow bridges	Careless stoking.
180	1 Boiler	4½	Blank door	Careless stoking.
R.A. 99	4 Boilers	11½	Hollow bridges	Careless stoking.
R.B. 99	4 Boilers and 6 Furnaces	14	Grids	Careless stoking.
52	2 Boilers	9	Forced draught	Careless stoking.
W.G.W. 46	5 Boilers and 7 Furnaces	24	Hollow bridges	Careless stoking.
L.S.B. 137	4 Boilers and 2 Furnaces	16½	Grids	Careless stoking.
165	1 Boiler	6	Forced draught	Careless stoking.
13	2 Boilers and 1 Furnace	14½	Grids	Careless stoking.
30	1 Boiler	5	Blank door	Careless stoking.
L.S.E. 27	4 Boilers	13	Grids	Careless stoking.
L.S.C. 27	7 Boilers and 3 Furnaces	17	Grids	Careless stoking.
S.I. 26	1 Boiler	28½	Blank door	Careless stoking.
93	1 Boiler	5	Grids	Careless stoking.
I.B. 27	1 Boiler	8	Oates' apparatus	Careless stoking.
I.A. 77	1 Boiler	7	Oates' apparatus	Careless stoking.
110	1 Boiler	3	Hollow bridges	Careless stoking.
R.I.A. 40	3 Boilers	14½	Induced draught	Low chimney emits grits.
141	1 Boiler and 2 Coppers...	8	Blank doors	Careless stoking.
67	1 Boiler and 1 Copper ...	8	Grids	Careless stoking.
L.S. 155	2 Boilers	11	Forced draught	Careless firing.
H.A. 81	9 Boilers	10	Louvre doors	Careless firing.
H.B. 81	9 Boilers	10	Forced draught	Careless firing.
L.S.C. 27	7 Boilers and 2 Furnaces	15½	Valve in dead plate ...	Careless firing.
L.S.D. 27	5 Boilers	15	Square grids	Careless firing.
R.I.B. 124	1 Boiler	9	Circular grid	Low chimney & bad draught
S.R.I. 124	1 Boiler	9	Perforated door... ..	Careless firing.
L.S. 41	2 Boilers	12½	Forced draught	Additional boiler provided.
H.A. 50	2 Boilers	9½	Circular grids	Careless firing.
L.S. 54	1 Boiler and 2 Furnaces	9	Square Grids	Careless firing.
S.R.I. 151	1 Boiler	8	Perforated door... ..	Careless firing.
S.R.I. 58	1 Boiler	6	Perforated door... ..	Careless firing.
S.R.I. 173	1 Boiler	6	Circular grid	Careless firing.
L.R. 129	2 Boilers and 6 Furnaces	20	Forced draught	Careless firing.
R.M. 39	3 Boilers	17½	Automatic apparatus ...	Apparatus not in working order.
S.R.I. 25	1 Boiler	6	Square grid	Fireman other work.
S.R.I. 170	1 Boiler	5	Perforated door... ..	Careless firing.
V.B. 170	1 Boiler	7	Perforated door... ..	Careless firing.
L.R. 96	2 Boilers	17½	Square grids	One boiler repairing.
L.H. 74	6 Boilers	20	Square grids	Careless firing.
H.B. 50	3 Boilers and 2 Furnaces	20	Square grids	Careless firing.
S.R.I. 176	1 Boiler	13	Circular grid	Careless firing.
M.B. 30 13	1 Boiler	18½	Induced draught	Testing steam capacity of boiler.
L.S. 91	1 Boiler	9	Square grids	Careless firing.

TABLE LXIII.—*Smoke Abatement Continued.*

Number of Chimney,	Boilers and Furnaces attached.	Minutes for which notice was served.	Smoke Consumer on when the Notice was served.	Remarks.
V.B. 58	1 Boiler	34½	Circular grid	Draught improved.
L.R. 95	2 Boilers and 2 Furnaces	9	Automatic apparatus ...	Apparatus not kept in working order.
L.B. 68	1 Boiler	8	Square grids	Careless firing.
L.S. 117	2 Boilers	8½	Square grids	Careless firing.
V.B. 93	1 Boiler	7	Perforated door	Careless firing.
L.R. 153	1 Boiler	11	Square grids	Boiler very heavily worked.
S.R.I. 151	1 Boiler	8½	Perforated door	Careless firing.
L.N.R. 17	1 Boiler	20½	Induced draught	Apparatus not kept in working order.
L.R.I. 46	6 Boilers	15½	Grids and hollow bridges	Air passages choked with ashes.
L.H. 136	1 Boiler	15	Forced draught	Now working with natural draught.
M.M. 51	1 Boiler	12½	Forced draught	Careless firing.
L.R.I. 140	1 Boiler	7½	Square grid	Additional boiler put down.
S.R.I. 140	1 Boiler	14½	Perforated door	Burning coke; chimney raised
S.I. 81	1 Boiler	10	Perforated door	Careless firing.
L.R. 136	1 Boiler	8½	Louvre door	Careless firing.
L.R. 1	1 Boiler	14½	Hollow bridges	Careless firing.
L.S. 110	1 Boiler	11½	Natural draught... ..	Cylinder boiler.
S.R.I. 88	1 Boiler	19	Grids	Short of boiler power.
S.S. 52	1 Boiler	11	Forced draught	Flues too small.
L.S. 3	2 Boilers	8½	Induced draught	
L.R. 15	1 Boiler	11½		
L.H. 95	1 Boiler	7½	Grids	Grids closed; carelessness.
L.R.B. 102	1 Boiler	16½	Grids	Grids closed; carelessness.
L.R. 35	3 Boilers	14		
L.R. 37	1 Boiler	7	Automatic air valves ...	Carelessness.
S.S. 22	1 Boiler	9	Air valves	Air valves not worked; carelessness.
R.I. 53	1 Boiler	10	Natural draught	Chimney raised.
S.R.I. 50	Portable Engine ...	6	Grids	Chimney raised.
S.S. 25	1 Boiler	7	Grids	Carelessness.
L.S. 98	2 Boilers	7	Grids	Steam dampers out of repair.
L.S. 27	1 Boiler	9	Grids	Steam dampers out of repair.
L.R.A. 8	1 Boiler	8	Air valves and grids ...	Carelessness.
L.R. 2	1 Boiler	9	Air valves and grids ...	Air valves not in working order.
L.R. 136	1 Boiler	10½	Grids	Carelessness.
S.S. 170	1 Boiler	8½	No appliance	Boiler too small.
L.R. 151	2 Boilers	7½	No appliance	Boilers in different parts of works.
L.S.A. 176	2 Boilers & 1 Brick Kiln.	14½	Brook's apparatus	Boilers heavily worked.
R.I.B. 40	Portable Engine ...	10	No appliance	Fireman other duties.
R.I. 169	Portable Engine ...	15	No appliance	Fireman other duties.
L.S. 46	1 Boiler	7	Grids	Grids closed, not workable; carelessness.
L.R. 87	2 Boilers	8½	Grids	Carelessness.
L.S. 112	1 Boiler	7	Meldrum's forced draught	Apparatus not in working order.
L.S. 109	1 Boiler	5½	Grids	Carelessness.
S.S. 58	1 Boiler	7	No appliance	Carelessness.
L.H. 101	1 Boiler and 1 Furnace...	17	Meldrum's forced draught	Apparatus choked.
L.H. 72	1 Boiler	8	Grids	Ash pit choked.
L.S. 146	1 Boiler	14½	Air valves	Air valves closed; not in working order.
L.R. 153	1 Boiler	8½	Grids	Grids choked; carelessness.
R.I. 92	1 Boiler	6½	No appliance	Carelessness.
L.S.B. 176	1 Boiler & 2 Brick Kilns..	17½	Brook's apparatus	Carelessness.
L.R. 15	1 Boiler	7½	Grids	Steam damper attached out of repair.
L.R. 113	1 Boiler	11½	Mechanical stoker	Carelessness.
L.R. 113	2 Boilers	11½	No appliance	Boilers old type.
L.S. 70	4 Boilers & 11 Furnaces..	14½	Air valves and steam jets	Boilers heavily worked.
L.R. 108	2 Boilers	8	Air valves	Air valves choked.
L.S. 155	1 Boiler and 2 Coppers...	11½	Air valves	Air valves closed; carelessness.
L.R. 162	2 Boilers	7½	Automatic air valves ...	Automatic apparatus not in working order.
L.R. 122	2 Boilers	9½	Grids	Carelessness.
L.R. 119	1 Boiler	6	Grids	Grids closed; carelessness.
L.S. 140	2 Boilers	7	Grids	Grids closed; carelessness.
L.R. 137	2 Boilers	8	Grids	Carelessness.

SWINE FEVER.

Sixteen cases were notified to the Police as being suspicious of Swine Fever. These were investigated by the Inspector of the Board of Agriculture, with a result that four were found to be Swine Fever.

OFFENSIVE TRADES.

During the latter part of 1901, bye-laws were passed dealing with the offensive trades in the City. During 1902 these bye-laws were gradually brought into operation, and have done a great deal of good in many instances. Each person carrying on an offensive trade was supplied with a copy of the bye-laws, and in this way possesses a guide to what he should do to prevent a nuisance, while formerly he had no such guide. In several instances the bye-laws have been very useful to the Health Committee in deciding as to whether premises would be suitable for the offensive trade in question. As will be seen from the list below, the most common offensive trade in Sheffield is that of tripe boiling. The seven bye-laws dealing with this trade have proved most beneficial. The majority of these refer to the cleansing and limewashing of the floors, walls, &c., of the tripe boiling premises. The most important bye-law, however, specifies what shall be done to render innocuous the vapours emitted during the process of boiling, from the contents of the boiling pans. Several trades have not been brought within the bye-laws, although highly offensive. For instance, some of the fried-fish shops are exceedingly offensive.

During the year the following premises, where offensive trades are carried on, have been regularly visited by Inspector Elcock:—

Bone Crushers	...	...	...	...	...	...	...	...	2
Hide and Skin Markets	...	...	...	...	...	...	...	...	2
Horn Cutters	...	...	...	...	...	...	...	...	3
Grease Manufacturer	...	...	...	...	...	...	...	...	1
Gut Cleaners	...	...	...	...	...	...	...	...	4
Fellmonger	...	...	...	...	...	...	...	...	1
Tallow Melter	...	...	...	...	...	...	...	...	1
Tannery	...	...	...	...	...	...	...	...	1
Tripe Boilers	...	...	...	...	...	...	...	...	24
Total	...	...	...	...	...	...	...	...	39

The total number of visits paid by Inspector Elcock was 533.

SLAUGHTER-HOUSES AND MEAT INSPECTION.

Probably the most unsatisfactory part of our sanitary administration in Sheffield is that dealing with the meat supply. It is probably correct to say that 90 per cent. of the meat consumed in Sheffield has not been passed by anybody as fit for human consumption. On several occasions during recent years, attention has been drawn to the unsatisfactory condition of a large number of the Sheffield slaughter-houses. These are unsatisfactory from the point of view of their number, of their situation, of their sanitary condition, and of conditions of public decency. With so many small, scattered slaughter-houses, in crowded back-yards, efficient control over our meat supply is quite impossible.

The remedy for the existing conditions is a simple one, *i.e.*, the erection of properly appointed public slaughter-houses, and the gradual closure of the more insanitary private slaughter-houses. In dealing with this question, two considerations should be kept prominently before the Committee, *viz.*, maximum efficiency with minimum expenditure. It will be most important to bear the question of expenditure constantly in mind when dealing with the question. If elaborate slaughter-houses are erected with great expenditure of money, there will be a tendency to require from butchers such a payment for the use of the slaughter-house, as will make it unpopular, and to a large extent stultify the objects which the Committee have in view in erecting public abattoirs. It will therefore be necessary not only to erect the slaughter-house on a relatively inexpensive site, but also to make the building as plain as possible, and to leave ample room for extensions. It is almost certain that an abattoir erected on such lines will be successful in Sheffield.

In addition to the all-important reasons given above for the acquisition of a public slaughter-house, it should be pointed out that the present Shambles are required for street making purposes. From the tables which are appended it will be seen that there is nothing exceptional to report as regards the inspection of dead meat.

During the year, as in former years, Anthrax carcasses have been brought into the City with great liability of danger to life and health of those handling such carcasses. In one case during 1902, a farmer sent in a carcass to be dressed. When the butcher proceeded to open it, he suspected Anthrax, and immediately reported it to us. The necessary precautions were taken in this case, and no infection to the human subject occurred. Enquiries were at once instituted, and there appeared to be some reason to believe that the farmer ought to have known about the nature of the illness of his cow. The County Authorities were communicated with, and proceedings were taken. Mr. Lloyd, our Veterinary Surgeon, and Inspector Elcock, gave evidence, and a fine of 10s. and costs was imposed. While this report is being prepared, another case has occurred in which an Anthrax carcass was completely dressed by a butcher in a district ten miles away from Sheffield. The carcass was sent into Sheffield, and apparently was consumed without giving rise to any illness. One of the men, however, who handled the carcass, contracted a most severe Anthrax infection, and his life was only saved by a prompt operation.

The usual tables are appended.

TABLE LXIV.—*Showing the amount of Meat, &c., condemned as unfit for human food during the year 1902.*

MEAT.					FISH.				FRUIT & VEGETABLES.		
41 $\frac{3}{4}$	Carcases of Beef	15	Boxes, Barrels, &c., of Bloaters								
3	„ Stirks	1	„ „ Carp								
23	Pieces of Beef	1	„ „ Cat								
5	Beeves' Hearts	9	„ „ Cod								
12	„ Livers	6 $\frac{1}{2}$	„ „ Conger Eel								
32	„ Lungs	2	„ „ Dab								
6	„ Udders	1 $\frac{1}{4}$	„ „ Hake								
1	„ Spleen	26	„ „ Haddock								
1	„ Belly and Heels	5	„ „ Halibut								
8	Boxes of Beeves' Kidneys (foreign)	28	„ „ Herrings								
13	„ „ Livers (foreign)	15	„ „ Kippers								
36 $\frac{1}{2}$	Carcases of Mutton	28	„ „ Ling								
2	Pieces „	23	„ „ Mackerel								
2	Sheeps' Heads and Plucks	13	„ „ Mixed	20	Sieves of Cherries						
1	Carcass of Venison	2 $\frac{3}{4}$	„ „ Plaice	54	Crates of Tomatoes						
27 $\frac{1}{2}$	Cases of Sheep Kidneys (foreign)	3	„ „ Skate	1	Barrel of Apples						
13	Carcases of Pork	27	„ „ Sprat								
3	Pieces „	8	„ „ Sprag								
116	Cases of Pigs' Kidneys (foreign)	2	„ „ Witches								
7	„ „ Plucks (foreign)	7	„ „ Crabs								
77	Carcases of Veal	42	„ „ Cockles								
6	Pieces „	1	„ „ Lobster								
64	Carcases of Lamb	263	„ „ Mussels								
13	Pieces „	13	„ „ Oysters								
36	Couples of Chickens	20 $\frac{1}{2}$	„ „ Shrimps								
8 $\frac{1}{2}$	„ Fowls										
17	„ Guinea Fowls										
2	Cases of Fowls (foreign)										
12	Couples of Wood Pigeons										
2	Baskets of Geese Giblets										
68	Couples of Rabbits										
1	Crate of Eggs										
WEIGHT.					WEIGHT.				WEIGHT.		
T.	C.	Q.	LBS.		T.	C.	Q.	LBS.	C.	Q.	LBS.
15	6	3	14		34	5	3	14	16	1	0

TABLE LXV.—*Showing the number of Carcases of Meat condemned and destroyed as being affected with Tuberculosis, and also with various other diseases and from other causes, during the years 1892-1902.*

YEAR.	Number of Carcases of Meat condemned and destroyed affected with Tuberculosis.						Number of Carcases of Meat condemned and destroyed affected with various diseases, and from other causes.					
	Beef.	Mutton.	Pork.	Veal.	Lamb.	Goat.	Beef.	Mutton.	Pork.	Veal.	Lamb.	Goat.
1892	44	...	...	1	...	...	38 $\frac{3}{4}$	85 $\frac{1}{2}$	17	41	4	...
1893	70	...	...	...	...	...	41 $\frac{1}{2}$	69	9	38 $\frac{1}{2}$	1	3
1894	43	1	2	3	...	...	44 $\frac{1}{4}$	54	48	40	13	2
1895	40	...	...	1	...	...	38 $\frac{3}{4}$	54	45	29	5	...
1896	34	...	...	1	...	...	39 $\frac{1}{4}$	86	60 $\frac{1}{2}$	34	6	2
1897	30	1	2	...	...	...	29 $\frac{1}{2}$	154 $\frac{1}{2}$	11	68	46	...
1898	21	...	1	1	...	...	33	830	19 $\frac{1}{2}$	28	7	1
1899	36	1	2	...	...	...	32	60	2	27	8	...
1900	16	...	...	...	...	...	38 $\frac{1}{2}$	55	5	26	9	...
1901	16	...	...	...	...	...	27 $\frac{1}{2}$	38	6	43	2	...
1902	18	...	1	1	...	...	27 $\frac{3}{4}$	36 $\frac{1}{2}$	12	76	64	...
	368	3	8	8	...	...	390 $\frac{3}{4}$	1522 $\frac{1}{2}$	235	450 $\frac{1}{2}$	165	8

Of the carcasses condemned in the above table, 20 were affected with Tuberculosis, viz., 1 cow giving milk (detected by Mr. Lloyd, Veterinary Inspector, who advised the owner to have it slaughtered); 4 cows in fair condition; 12 old worn-out cows; 1 stirk under a year old; 1 calf 6 months old; and 1 pig.

1 carcase of beef was also condemned and destroyed affected with Anthrax.

TABLE LXVI.—*Inspection of Slaughter-houses, Shops, Stores, &c.*

Number of Slaughter-houses which were in use previous to 1865.	Number of Slaughter-houses put on the Register of 1865.	Number of Slaughter-houses put on the Register of 1875.	Number of Licences under the Sheffield Corporation Act.	Number of Horse Slaughter-houses on the Register.	Total Number of Slaughter-houses on the Register.	Number of Visits to Slaughter-houses.	Number of Visits to Shops and Stores.
48	44	71	22	2	187	3156	3308

During the year 16 changes of occupations of slaughter-houses have taken place, and three have been closed, viz., one in regard to which there was no record of registration, and which the owner voluntarily closed; this place has since been demolished. Two others, one of which was registered in the year 1865, and the other licensed under the Public Health Act of 1875, have been acquired by the Corporation for street improvements. Two persons have been granted yearly licences to slaughter on approved premises.

HOUSES SUB-LET IN LODGINGS.

These houses have been very regularly inspected during the year, and since this systematic inspection has been going on, their condition is undoubtedly much better; but while this is so, it is still a fact that the conditions under which the occupants live are far from satisfactory. It is probably correct to say that the lowest class of the community resort to these sub-let houses—lower and more degraded than the habitués of our common lodging-houses. In addition to the obvious liability to insanitary conditions, these houses offer convenient residences for those persons of the

working-class who are absolutely careless and reckless as regards their rights of citizenship. Their only possessions are the clothes they wear; not even the towels, cups or saucers, kettles or saucepans in the house belong to them. Men and women live together, only to separate on the slightest excuse; indeed, in the majority of cases these houses harbour the profligate and most reckless class in our cities.

Several real difficulties have been experienced during the year in improving the condition of these people. In Sheffield it is the custom of an owner of property to let all the houses in one court-yard to a person who is known as the *landlord* of the sub-let houses. In many cases these court-yard houses contain only two rooms (one living room and one bedroom), and where such a house is let to one family, it does not come within the meaning of the term "Houses Sub-let in Lodgings," as it is a house let and not sub-let. Power should be obtained to bring such houses within the law. It must be obvious to everybody that it is a matter of no importance whether two rooms are hired in a furnished condition by this class of personage, in a place which is a complete house, or whether it is a big tenement where two rooms form only part of the house. Another condition which requires to be amended is that in regard to the question of decency. In certain of the houses it is a common custom to have each room in a house occupied by one family, and to gain access to the upper rooms it is necessary to pass through the lower rooms. In this way in many cases, the occupants of the top room have to pass through the room which is used as a living room and bedroom combined, of two other families. In addition to the above there are several minor matters which require to be amended in the bye-laws dealing with Houses Sub-let in Lodgings.

Inspector Weatherbed has devoted most of his time during the year to looking after these houses, and the whole of the time of Miss Emerson has been employed in visiting them.

In the following table is given an outline of the work done in regard to Houses Sub-let in Lodgings during the years 1901 and 1902.

TABLE LXVII.—*Houses Sub-let in Lodgings.*

							1901.	1902.
Number of visits for registration purposes	...	...	...	...	...	...	355	83
Number of houses registered	...	...	...	...	...	...	328	68
Number of rooms measured	...	{	Living	...	...	...	237	34
			Sleeping	...	...	...	273	66
			Living and Sleeping	...	...	...	191	43
Number of occupants	...	{	Adult males	...	...	...	451	93
			„ females	...	...	...	382	77
			Children	...	...	...	390	80
Total adult accommodation	...	...	...	...	...	...	1372	302
Number of visits and re-visits for inspection purposes	...	...	...	...	...	...	9807	12590
Contraventions of bye-laws	...	{	Overcrowding	...	...	...	80	53
			Rooms improperly occupied	...	...	...	7	2
			Admission refused...	...	...	...	4	—
			Insufficient closets...	...	...	...	7	2
			Filthy closets	...	...	...	98	68
			Dirty courts	...	...	...	104	59
			Opening of windows (daily)	...	...	...	818	622
			Ventilation maintained	...	...	...	53	21
			Daily refuse removal	...	...	...	685	514
			Dirty staircases, &c.	...	...	...	918	602
			Windows, &c., to be cleaned	...	...	...	349	75
			Animals improperly kept	...	...	...	4	9
			Dirty floors	...	...	...	1205	643
			Dirty beds and bedding	...	...	...	498	226
Notices served	...	{	Personally	...	...	...	2	1
			By post	...	...	...	587	104
Instructions given <i>re</i> feeding of children	...	...	...	...	...	...	361	458
„ „ cleansing	„	„	...	...	...	...	263	370
Reports to District Inspectors	...	{	Houses—structural defects	...	...	...	150	115
			„ damp and dilapidations...	...	...	...	147	61
			„ drainage defects...	...	...	...	236	166
			Defective or foul middens	...	...	...	66	22
			Insufficient closets...	...	...	...	11	2
Reports to Cleansing Sup'tendent...	{	Choked street gullies	...	...	...	...	24	5
		Full ashpits	...	...	...	...	263	153
Reports to the Water Department...	...	...	...	...	...	...	71	58
„ N.S.P.C.C.	...	...	...	...	...	...	6	5

TABLE LXVIII.—DAIRIES, MILKSHOPS, AND COWSHEDS.

	1899.	1900.	1901.	1902.
NUMBER OF INSPECTIONS—Cowsheds	2,534	2,294	1,663	1,133
Milkshops	739	593	412	812
Milk vessels	3,352	3,385	2,764	5,468
Total of the above	6,625	6,272	4,839	7,413
NUMBER OF WRITTEN NOTICES SERVED	16	20	4	26
ALTERATIONS AND IMPROVEMENTS EFFECTED—				
(a) By written notices	16	20	4	13
(b) „ verbal „	6	17	21	16
(a) IN COWSHEDS—New cowsheds built	4	3	5	3
New drainage provided	5	4	2	1
Air-space increased	4	7	7	12
Grain receptacles removed	—	2	—	—
Manure pit repaired	3	12	9	2
New manure pits	2	3	1	4
Yards paved and repaired	2	6	6	6
Sanitary troughs provided	9	20	17	2
Number of cowsheds closed	14	6	8	1
(b) IN DAIRIES AND MILKSHOPS—New cupboards provided ...	6	5	3	4
Improvements in lighting	2	4	2	—
Milk vessels dirty	3	7	—	—
Milkshops closed	5	3	—	1
INFECTIOUS DISEASES (a) On Cowkeepers' premises	15	7	6	6
(b) „ Milksellers' „	4	7	5	7
CHANGES OF OCCUPATION—(a) Cowsheds	14	9	18	10
(b) Milkshops	14	12	30	22
REGISTERED DURING YEAR—(a) Cowkeepers	18	11	21	25
(b) Milksellers	43	40	39	40
PRESENT NUMBER ON INSPECTOR'S BOOKS—(a) Cowkeepers ..	240	218	208	231
(b) Milksellers	269	295	304	326

TABLE LXIX.

Showing list of the various articles purchased in pursuance of the Food and Drugs Acts during 1902, and the preceding nine years, together with information as to the number of such samples found to be adulterated :—

ARTICLES PURCHASED FOR ANALYSIS.	1893		1894		1895		1896		1897		1898		1899		1900		1901		1902	
	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.
Milk... ..	130	17	181	11	200	4	154	15	167	19	143	17	143	17	228	38	242	32	421	31
Butter	33	3	40	3	44	4	23	...	26	1	15	1	15	8	64	8	65	8	141	8
Margarine ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	4	...
Cream ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...
Cheese ... ..	...	...	6	...	...	...	...	...	5	...	...	...	...	...	9	...	1	...	24	5
Lard ... ..	...	...	12	...	10	...	...	...	...	...	24	...	2	1	...	...	2	...	7	...
Bread and Butter ... ..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Whisky ... ..	...	...	6	2	6	3	10	3	12	...	...	...	...	...	...	...	26	3	44	8
Gin ... ..	...	...	6	1	4	1	10	2	...	...	...	...	...	...	...	...	...	...	...	...
Brandy ... ..	...	...	...	...	6	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...
Beer ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	1	24	1	...	...
Honey ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...
Flour	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tea	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coffee	15	7	...	...	10	1	...	...	...	...	19	13	...	...	...	...	...	...	12	...
Jam	6	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Vinegar	12	8	1	1	10	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...
Pepper ... ..	...	...	...	...	...	...	10	...	...	...	1	...	...	...	...	...	4	...	24	...
Mustard	9	...	...	...	6	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Ground Ginger	10	3	...	...	...	...	...	...	...	...	6	1	...	...	...	...	7	...	7	...
Medicines ... ..	...	...	6	...	...	...	...	...	...	...	...	...	5	...	15	3	11	3	2	...
Tincture of Rhubarb. ... ..	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sal Volatile... ..	...	...	3	1	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...
Cream of Tartar ... ..	...	...	...	...	...	...	...	...	...	...	6	...	3	...	...	...	...	...	...	...
Paregoric ... ..	...	...	3	...	6	...	...	...	...	...	...	...	...	...	...	...	5	...	2	...
Laudanum ... ..	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...
Glycerine ... ..	...	...	...	...	...	...	...	...	6	...	6	...	...	...	...	...	...	...	...	...
Lint. of Camphor ... ..	...	...	...	...	...	...	...	...	6	1	...	...	3	...	5	3	8	1	16	1
Com. Liq. Powder ... ..	...	...	...	...	...	...	...	...	...	...	...	...	6	...	10	1	2	...	11	1
Carbonate of Bismuth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...
Sweet Spirit of Nitre ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...
Custard Powder ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Chocolate ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
TOTALS	231	38	279	19	308	13	217	20	223	21	231	32	177	26	340	54	413	48	738	54
Percentage of Adulterated Samples ...	16·4		6·8		4·2		9·2		9·4		13·9		14·7		15·9		11·6		7·3	
Percentage of do. for all England ...	12·9		10·3		9·3		9·2		9·4		8·7		9·4		8·8		8·8		...	

TABLE LXX.—*Details of Proceedings during 1902, under the Food and Drugs Acts.*

MILK	Number of Samples purchased during 1902	421
	Do. found to be genuine	385
	Do. do. inferior	5
	Do. do. deficient in fat	16
	Do. do. adulterated	15
	Fines imposed:—Five at £5 and 10/6 costs; five at £3 and 7/- costs; one at £3, three at £2, three at £1, one at £2 and 7/- costs; one at 30/- and 3/6 costs; one at 10/- and 12/- costs; one at 15/-, one at 10/-. Five withdrawn; four dismissed.	
	One purveyor was fined £1 and 7/- costs for not having his name and address on three vessels.	
BUTTER	Number of Samples purchased, 1902	141
	Do. found to be genuine	132
	Do. do. adulterated	8
	Do. do. inferior	1
	Fines imposed:—Three at £2, one at £1 7s., one at £1 15s. 6d., one at 5/-, one at 3/6. One dismissed.	
CREAM	Number of Samples purchased, and genuine... ..	5
WHISKY	Number of Samples purchased, 1902	44
	Do. found to be genuine	36
	Do. do. adulterated	8
	Fines imposed:—One at £5, three at £2, one at 30/-, one at £1.	
CHEESE	Number of Samples purchased, 1902	24
	Do. found to be genuine	19
	Do. do. adulterated	5
	Fines imposed:—Three at 10/-, two at £4 and costs.	
MARGARINE	Number of Samples purchased	4
	One provision merchant was fined £10 for delivering Margarine unlabelled, and seven were fined for not having Margarine labelled.	
	Fines imposed:—Two at £1, two at 5/-, two at 10/- One dismissed.	
CAMPHORATED OIL ...	Number of Samples purchased	16
	Do. found to be genuine	15
	Do. do. adulterated	1
	Fines imposed:—One at 10/-	
COMPOUND LIQUORICE POWDER	Number of Samples purchased	11
	Do. found to be genuine	10
	Do. do. adulterated	1
	Fines imposed:—One at 7/-	
PEPPER	Number of Samples purchased (Genuine)	24
COFFEE	Do. do. do.	12
LARD	Do. do. do.	7
LAUDANUM	Do. do. do.	5
HONEY	Do. do. do.	4
SWEET NITRE	Do. do. do.	4
CHOCOLATE	Do. do. do.	2
PRESCRIPTIONS ...	Do. do. do.	2
PAREGORIC	Do. do. do.	2
VINEGAR	Do. do. do.	1
STRAWBERRY JAM ...	Do. do. do.	1
RASPBERRY JAM ...	Do. do. do.	1
GROUND GINGER ...	Do. do. do.	7

TABLE LXXI.—*Total Number of Persons to each Sample Purchased under Food and Drugs Acts.*

Towns.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901
	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.	Number of Population per Sample.
Birmingham ...	1 in 498	1 in 530	1 in 499	1 in 486	1 in 436	1 in 439	1 in 440	1 in 417	1 in 417	1 in 423	1 in 415	1 in 412
Bradford ...	1 „ 1336	1 „ 1276	1 „ 1291	1 „ 1011	1 „ 903	1 „ 901	1 „ 850	1 „ 819	1 „ 855	1 „ 642	1 „ 535	1 „ 571
Leeds ...	1 „ 1461	1 „ 1741	1 „ 1661	1 „ 1600	1 „ 1613	1 „ 1627	1 „ 1609	1 „ 1544	1 „ 1041	1 „ 783	1 „ 727	1 „ 801
Liverpool ...	1 „ 641	1 „ 520	1 „ 553	1 „ 526	1 „ 493	1 „ 485	1 „ 521	1 „ 442	1 „ 428	1 „ 330	1 „ 253	1 „ 358
Manchester ...	1 „ 235	1 „ 312	1 „ 315	1 „ 313	1 „ 321	1 „ 317	1 „ 320	1 „ 296	1 „ 290	1 „ 285	1 „ 297	1 „ 318
London ...	1 „ 645	1 „ 528	1 „ 577	1 „ 530	1 „ 505	1 „ 430	1 „ 399	1 „ 380	1 „ 353	1 „ 325	1 „ 312	1 „ 292
Nottingham ...	1 „ 2472	1 „ 2151	1 „ 1656	1 „ 2625	1 „ 1644	1 „ 1421	1 „ 1618	1 „ 1143	1 „ 807	1 „ 858	1 „ 813	1 „ 793
SHEFFIELD ...	1 „ 2469	1 „ 2602	1 „ 1656	1 „ 1403	1 „ 1212	1 „ 1112	1 „ 1600	1 „ 1577	1 „ 2014	1 „ 1821	1 „ 942	1 „ 990
England and Wales ...	1 „ 5151	1 „ 999	1 „ 894	1 „ 779	1 „ 734	1 „ 661	1 „ 636	1 „ 619	1 „ 585	2 „ 547	1 „ 461	1 „ 479

TABLE LXXII.—*Showing Milk Samples found to be deficient in fat and the quantity of non-fatty solids; also the results of Proceedings taken.*

No. of Sample.	Fat. Per Cent.	Non-Fatty Solids. Per Cent.	Result of Proceedings.
1270	2·69	8·78	Fined £3, including costs.
1375	2·65	8·64	Fined £1, including costs.
353	2·66	9·01	Fined 30/- and 3/6 costs.
421	2·79	8·99	Dismissed.
425	2·72	8·92	Dismissed.
410	2·60	8·84	No case.
419	2·60	8·41	Fined £2, including costs.
454	2·99	8·85	No case.
455	2·88	8·83	No case.
8	3·19	8·24	Withdrawn.
30	2·68	8·47	Fined £1, including costs.
135	0·14	8·31	No case.
242	0·91	8·28	Fined £4 and 10/6 costs.
211	1·30	8·66	Fined £4 and 10/6 costs.
212	2·46	8·66	Fined £4 and 10/6 costs.
1364	2·75	9·54	Dismissed on Warranty.

TABLE LXXIII.—*Showing Milk Samples found to be adulterated with water, and the quantity of non-fatty solids; also the result of Proceedings taken.*

No. of Sample.	Percentage Adulteration with Water.	Non-Fatty Solids.	Result of Proceedings.
1374	5	...	Fined £1, including costs.
1433	4	...	Fined 10/-, including costs.
146	5·5	...	Fined 10/- and 6/- costs.
304	11	...	Fined 15/-
480	4·7	...	No case.
9	7·5	...	Fined £2 and 7/- costs.
83	5	...	Fined £2, including costs.
152	16	...	Fined £2, including costs.
241	8	...	Fined £3 and 7/- costs.
181	24	...	Fined £3 and 7/- costs.
151	10	...	Fined £3 and 7/- costs.
271	23	...	Fined £3 and 7/- costs.
301	26	...	Fined £3 and 7/- costs.
152	24	...	Fined £4 and 10/6 costs.
302	17	...	Fined £4 and 10/6 costs.

HOUSING OF THE WORKING CLASSES.

Within the past few years the number of houses which have been demolished in the central area of the City has been very large on account of railway schemes, street improvement schemes, &c. In some instances these schemes have been the means of getting rid of a number of houses which should be considered unfit for human habitation ; but there are still in Sheffield a very large number of houses which are, either individually or by reason of their being in narrow, badly ventilated courts and streets, unfit for habitation. On account, however, of the number of houses which have been demolished during quite recent years, it was thought inadvisable to take any drastic measures in attempting to clear further areas during 1902. The condition of Sheffield, so far as the housing question is concerned, will within a very few years be in a much better condition than it is now. The first section of the Crofts insanitary area has now been entirely rebuilt and occupied, and the second section is being proceeded with. During 1902 a great deal of attention was directed to the schemes for building workmen's dwellings on the two large estates which have been purchased by the Corporation in the suburbs of the City, and many difficult questions occurred and had to be settled during the year. So far as dealing with houses under Part 2 of the Housing of the Working Classes Act is concerned, there appears to be a need for bearing two points prominently in mind, with a view to getting in the near future some amendment of the Act relating to the closing of dwellings. The points that require attention are, that the life of cottage property in a City—and especially one like Sheffield, where there is such a large quantity of acid gases and soot in the air, is limited. Houses, therefore, have a limited period of existence, even if kept in a moderately good state of repair. The other important point which requires to be borne in mind is that the requirements of sanitation are constantly progressing, not only in connection with the houses for the better classes, but also for the houses of the poor ; and that, therefore, what was considered good enough from a sanitary point of view a hundred years ago is not good enough to-day. A more general recognition of these two essential factors by everybody concerned in the question of the housing of the working classes would enable many of our most pressing difficulties to be got rid of ; and, to meet these, it would appear that alterations require to be made in the Act. It is unfair at present that the inhabitants as a whole should have to pay for filthy dilapidated property quite out of date in its general sanitary arrangements, because it is the custom of the country for owners not to lay past a sufficient sum for depreciation so as to enable them, if necessary, to pull down the house and rebuild it in a sanitary manner. Bad lighting and an insufficient amount of air-space are among the most important defects which are found in the old cottage property in the centre of the City ; yet, both these are things which are outside the house itself. The present Act has done an enormous amount of good, but that it is defective nobody who has any experience in its administration will deny.

CANAL BOATS ACTS.

The following is a copy of the Annual Report, as required by the Local Government Board, on the work carried out during the year 1902, in pursuance of the Canal Boats Acts :—

DEPARTMENT OF THE
MEDICAL OFFICER OF HEALTH,
TOWN HALL, SHEFFIELD,
JANUARY 15TH, 1903.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE, SHEFFIELD.

GENTLEMEN,

CANAL BOATS ACTS.

In compliance with Section 3 of the Canal Boats Act, 1884, I have to present to you the Annual Report of the work done under the Canal Boats Acts of 1877 and 1884, and the Local Government Board Regulations made thereunder for the year ending December 31st, 1902 :—

(1) Inspector James Weatherbed has acted as Inspector under the above Acts.

The duties of the office are performed in conjunction with certain duties connected with the attendance at School of Canal Boat Children and the inspection of houses sub-let in lodgings.

The salary for the joint offices is at the rate of £78 0s. 0d. per annum, with uniform.

(2) The number of boats inspected during the year was 1,138, against 1,434 in 1901, and 1,477 in 1900.

Out of the total 1,138, 1,083 were found to be in compliance with the Acts and Regulations.

It was found necessary to serve Notices on the owners of 36 Boats.

(3) The total number of infringements complained of was 55, their nature and extent being as follows :—

(a) Registration	0
(b) Change of Master	0
(c) Absence of Certificate	8
(d) Certificate not identifying owner	4
(e) Marking, Lettering and Numbering	15
(f) Overcrowding	0
(g) Partition separating sexes	0
(h) Cabins improperly occupied	0
(i) Cleanliness	3
(j) Painting	21
(k) Ventilation	0
(l) Dilapidation	5
(m) Removal of Bilge-water	0
(n) Admission refused	1
(o) No proper water vessel	2
(p) Without double bulkheads	3
(q) Notification of Infectious Disease	0

(4) It was found necessary to take legal proceedings in two cases, one of which was to enforce compliance with a Notice in regard to Local Government Board Regulations, Section 4, Art. 5 (painting of cabins). A fine of £1 and costs was imposed; and in the second case proceedings were taken to enforce compliance with a Notice for the same offence. A fine of £1, including costs, was imposed.

(5) It was also found necessary to send letters to certain owners drawing attention to the unfulfilled requirements of Notices. In most cases compliance was speedily made.

(6) There were no cases of Infectious Disease met with on any of the boats.

(7) It was not found necessary to detain any boats for cleansing and disinfection.

(8) The number of boats on the register on December 31st, 1902 was 96.

(9) There have been no boats registered during the year, but twelve have been taken off the register on account of the Boats being used as lighters only.

The total number of infringements was :—

Notices not abated, Dec. 31st, 1901	11
Notices served in the year 1902	36
Verbal cautions	19
Notices complied with	39
Verbal cautions complied with	12
Notices not abated, Dec. 31st, 1902	8
Visits to Canal during 1902	416
No. of women on boats inspected	447
No. of children between 5 and 12 years	291
No. of children 5 years and under	509

I am, Gentlemen, your obedient Servant,

JOHN ROBERTSON,

MEDICAL OFFICER OF HEALTH.

TABLE LXXIV.—*Conversion of Privies into Water-Closets.*

Year Ending Dec. 31st.	No. of Notices Served to Convert.	No. of Notices to provide Additional Accom- modation.	No. of Premises where Work has been Completed.	No. of Houses Involved.	No. of Workshops Involved.	Total Cost of Converting.	Total Cost of Additional.	Amount paid by Corporation either as $\frac{1}{3}$ cost or in lieu of $\frac{1}{3}$.
1890 and 1891	18	8	14	26	...	£ s. d. ...	£ s. d. ...	£ s. d. 37 11 6
1892	40	35	28	264	4	570 8 0	...	313 1 4
1893	49	40	36	264	12	810 15 11	...	397 5 3
1894	74	21	56	365	7	1,363 2 11	...	601 11 8
1895	38	38	29	220	4	581 3 5	...	273 14 5
1896	93	47	28	200	2	629 15 6	...	272 1 6
1897	123	100	80	769	...	2,778 19 2	1,228 11 8	1,161 16 6
1898	151	93	114	1,027	41	3,427 8 0	1,486 14 0	1,365 11 0
1899	286	167	146	1,298	75	4,293 6 0	1,918 5 0	1,736 12 0
1900	270	141	211	1,750	70	6,005 13 11	2,569 8 10	2,544 9 11
1901	284	167	207	1,672	163	6,940 11 2	2,143 16 5	2,748 7 10
1902	565	167	279	2,181	97	7,846 0 0	2,128 12 6	3,474 8 7

TABLE LXXV.—*Disinfecting Station.**Summary of Work for the year ending 31st December, 1902.*

Number of Articles.	DESCRIPTION.	Number of Articles.	DESCRIPTION.	REMARKS.
3152	Beds	1765	Sheets	These articles were brought in from 2633 private houses, and 57 public institutions.
768	Bed Slips	2983	Counterpanes	
98	Bed Hangings	673	Mattresses	
2546	Blankets	329	Carpets	
2580	Bolsters	1165	Articles of Women's Clothing	
1043	Bolster Cases	722	Articles of Men's Clothing	
4967	Pillows	1401	„ Children's „	
1991	Pillow Cases	1933	Various Articles	

TABLE LXXVI.—*Showing Meteorological data for each week during 1902, compiled from the daily returns sent by Mr. Howarth, and obtained by Instruments compared annually with the Standard Instruments at the Meteorological Office.*

WEEK ENDING	Mean Baro- meter Cor- rected.	Mean Daily Sun- shine. H. M.	MEAN DAILY TEMPERATURE.										TOTAL RAIN- FALL FOR THE WEEK.
			Dry Bulb.	Wet Bulb.	Humid- ity.	Dew Point.	Grass Min.	Soil 1 foot.	Soil 4 feet.	Air Max. (Shade).	Air Min. (Shade).		
Jan. 4	29.560	1 23	44.3	42.8	89 %	41.1	35.6	38.4	41.9	49.4	40.8	1.295	
„ 11.....	30.235	1 3	44.0	41.4	81 %	38.3	36.7	41.0	42.0	48.5	41.1	0.263	
„ 18.....	30.488	0 53	38.1	35.6	74 %	30.5	26.4	38.4	42.4	43.2	36.6	—	
„ 25.....	29.949	0 47	43.1	41.2	86 %	39.0	34.7	40.0	42.0	46.9	40.3	0.228	
Feb. 1.....	30.105	2 17	32.2	29.8	71 %	23.4	25.3	36.5	41.9	37.9	28.6	0.411	
„ 8.....	29.904	0 33	33.5	32.0	85 %	29.5	28.6	35.0	41.0	36.6	31.2	0.327	
„ 15.....	29.878	2 48	31.1	29.7	80 %	25.1	18.8	34.2	38.6	36.8	24.9	0.010	
„ 22.....	30.109	0 57	32.1	31.2	86 %	28.4	26.4	33.9	39.3	36.1	29.6	0.180	
Mar. 1.....	29.582	1 18	41.0	40.3	95 %	39.5	34.7	36.7	39.0	47.2	37.7	1.254	
„ 8.....	29.986	2 39	42.1	40.7	89 %	38.9	31.5	39.4	39.6	52.6	38.6	0.050	
„ 15.....	29.925	1 52	44.0	42.3	86 %	40.2	36.1	41.5	40.6	50.1	40.2	0.606	
„ 22.....	29.687	6 19	45.4	42.5	80 %	39.1	34.7	42.6	41.5	51.3	39.2	0.205	
„ 29.....	29.646	4 22	42.8	41.5	90 %	39.9	31.8	41.1	42.0	48.4	36.5	0.571	
April 5.....	29.782	4 11	43.2	41.6	88 %	39.8	32.4	42.6	42.3	49.3	35.4	1.230	
„ 12.....	30.159	2 30	39.1	36.7	81 %	33.6	28.0	40.0	42.5	44.9	33.5	0.115	
„ 19.....	29.920	5 33	48.5	44.2	73 %	39.6	29.8	42.3	42.2	55.8	37.5	1.000	
„ 26.....	29.889	6 5	51.2	47.6	77 %	44.0	37.3	46.5	43.1	58.6	43.0	0.603	
May 3.....	29.947	6 37	46.5	42.6	74 %	38.3	32.5	46.0	44.3	53.3	39.0	0.219	
„ 10.....	30.186	5 32	43.4	39.2	71 %	34.3	31.3	45.2	44.9	48.1	36.2	0.369	
„ 17.....	29.795	4 2	44.9	40.5	70 %	35.4	34.1	45.0	44.9	50.9	39.1	0.608	
„ 24.....	30.094	7 14	50.3	46.0	73 %	41.6	37.9	47.8	45.3	56.2	42.7	0.755	
„ 31.....	29.980	4 37	51.9	48.7	81 %	45.6	44.0	52.4	46.6	58.5	47.3	1.016	
June 7.....	29.929	3 33	54.0	51.8	86 %	49.8	43.4	52.9	46.0	62.8	48.7	0.472	
„ 14.....	29.703	2 6	49.8	46.9	81 %	43.8	40.5	51.2	49.0	54.0	44.0	0.615	
„ 21.....	29.857	2 7	52.5	50.2	85 %	47.9	45.3	52.4	49.2	60.7	47.9	0.593	
„ 28.....	30.224	10 40	64.8	59.4	71 %	54.9	46.8	58.5	50.3	75.3	52.4	0.025	
July 5.....	30.107	6 3	62.2	56.7	70 %	51.9	49.3	60.4	52.5	68.7	52.2	0.168	
„ 12.....	30.025	5 21	59.3	55.5	78 %	52.0	49.0	60.0	53.8	66.5	51.8	0.245	
„ 19.....	30.038	7 9	62.6	56.5	68 %	51.5	46.3	60.0	54.6	69.9	52.4	0.040	
„ 26.....	29.860	3 13	54.8	52.3	84 %	49.9	45.4	56.7	54.8	60.9	47.9	1.336	
Aug. 2.....	30.013	4 45	55.2	51.7	79 %	48.5	44.5	56.8	54.7	61.6	49.5	0.473	
„ 9.....	29.903	3 28	54.5	51.6	83 %	49.0	46.3	55.6	54.3	59.3	49.3	2.506	
„ 16.....	29.984	5 53	56.8	52.8	77 %	49.2	44.9	55.9	54.0	63.9	49.3	0.306	
„ 23.....	29.865	3 54	58.6	55.3	81 %	52.4	46.5	57.1	54.3	63.3	50.4	0.913	
„ 30.....	29.909	5 38	59.8	55.8	77 %	52.2	45.8	57.6	54.7	66.1	51.1	0.680	
Sept. 6.....	29.830	6 17	59.6	55.8	79 %	52.6	47.8	57.6	54.9	66.0	52.1	0.214	
„ 13.....	30.074	3 26	53.4	50.7	84 %	48.0	43.2	56.2	55.0	59.7	47.5	1.605	
„ 20.....	30.002	4 58	53.3	49.2	74 %	45.1	41.6	53.9	54.5	59.9	47.3	0.055	
„ 27.....	30.245	2 48	56.6	53.9	83 %	51.3	41.5	53.9	53.9	63.5	48.5	0.118	
Oct. 4.....	30.226	1 52	49.3	47.4	87 %	45.4	41.4	52.2	53.6	53.2	44.1	0.490	
„ 11.....	29.849	0 7	47.2	46.2	93 %	45.1	40.7	49.4	52.6	50.5	44.2	0.900	
„ 18.....	29.750	2 34	49.7	47.8	88 %	45.9	39.6	49.6	51.7	55.3	44.5	1.373	
„ 25.....	30.114	2 34	50.7	48.5	85 %	46.2	37.4	48.3	50.9	55.8	44.9	0.477	
Nov. 1.....	30.077	1 57	51.4	48.1	87 %	46.1	41.5	49.4	50.3	54.7	45.2	0.069	
„ 8.....	29.839	1 24	46.8	45.3	89 %	43.7	38.7	48.0	50.0	52.6	43.0	0.952	
„ 15.....	29.941	1 26	47.2	45.5	88 %	43.5	39.6	46.8	49.5	51.8	44.1	0.232	
„ 22.....	30.324	1 34	35.9	34.1	83 %	31.3	29.6	43.1	48.7	40.9	33.9	—	
„ 29.....	29.516	0 20	43.0	42.6	97 %	42.1	35.0	42.4	47.2	47.7	39.6	0.926	
Dec. 6.....	30.063	0 51	36.6	35.3	85 %	32.7	29.6	41.3	44.9	39.6	33.4	1.172	
„ 13.....	30.243	...	34.9	33.5	85 %	30.8	28.7	37.0	45.0	38.6	30.8	0.070	
„ 20.....	29.929	0 39	45.7	43.5	84 %	41.0	36.7	41.3	43.9	51.1	41.0	1.271	
„ 27.....	30.301	1 14	46.6	44.5	85 %	42.0	40.1	42.9	44.1	50.5	44.2	0.352	

TABLE A.—Vital Statistics of Registration Sub-Districts in 1902 and previous Ten years.

NAMES OF LOCALITIES.	1. NORTH.				2. SOUTH.				3. PARK.				4. BRIGHTSIDE.				5. ATTERCLIFFE.			
	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	* Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	* Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	* Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	* Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.
	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
1892 ...	37,314	1,434	1,032	295	29,207	1,119	673	170	25,093	857	561	158	68,488	2,560	1,384	413	36,830	1,476	782	289
1893 ...	37,168	1,396	1,139	328	29,234	1,145	788	208	25,173	842	608	194	69,612	2,439	1,454	470	37,777	1,455	762	270
1894 ...	36,916	1,412	904	257	29,251	1,122	589	160	25,272	808	552	177	70,727	2,359	1,166	376	38,919	1,357	689	236
1895 ...	36,873	1,399	1,057	325	29,260	1,130	694	201	25,372	868	551	202	71,842	2,583	1,357	466	40,062	1,529	798	295
1896 ...	36,732	1,380	1,018	298	29,336	1,123	667	206	25,307	932	580	173	72,504	2,455	1,276	424	41,261	1,490	791	267
1897 ...	36,462	1,412	1,071	325	29,214	1,080	713	187	25,569	849	572	181	73,805	2,538	1,518	541	42,250	1,565	859	313
1898 ...	36,459	1,402	1,032	320	29,226	1,088	691	204	25,567	849	604	191	74,862	2,497	1,360	483	43,395	1,678	956	380
1899 ...	36,150	1,433	1,241	363	29,186	1,046	749	203	25,620	807	608	190	76,045	2,541	1,489	479	44,950	1,735	1,033	386
1900 ...	38,745	1,412	1,137	331	26,726	1,023	721	184	25,292	813	618	185	72,666	2,379	1,607	498	50,190	2,000	1,076	401
1901 ...	38,801	1,331	1,068	333	26,463	940	627	162	25,324	808	621	203	77,977	2,444	1,460	492	52,828	2,059	1,086	458
Averages of years 1892 to 1901.	37,162	1,401	1,070	317	28,710	1,082	691	188	25,359	843	587	185	72,853	2,479	1,407	464	42,846	1,634	883	329
1902 ...	38,859	1,375	959	276	26,162	970	567	143	25,323	761	485	126	78,653	2,609	1,219	374	54,730	2,075	924	373

N.B.—The figures throughout this table have been re-distributed over the revised Sub-Districts excepting in columns marked thus *
* The figures given in these columns represent the old areas (those for South include West births).
† Extended October 31st, 1901.

TABLE A.—Continued.

NAMES OF LOCALITIES.	6. NETHER HALLAM.				7. UPPER HALLAM.				8. ECCLESALL.				* 9. NORTON.				* 10. HILLSBORO.			
	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
1892 ...	47,306	1,682	895	264	2,733	56	40	8	82,614	2,662	1,473	382	4,982	No Record.				7,804	131	41
1893 ...	48,167	1,662	968	305	2,752	74	41	10	84,039	2,571	1,659	453	5,444	No Record.				8,178	140	37
1894 ...	48,916	1,601	770	222	2,756	65	47	7	85,559	2,543	1,311	337	5,949	No Record.				8,571	96	23
1895 ...	49,664	1,733	918	344	2,761	73	40	9	86,934	2,697	1,593	501	6,501	No Record.				8,983	105	31
1896 ...	50,532	1,708	876	241	2,794	84	27	6	88,812	2,681	1,467	421	7,104	No Record.				9,414	148	41
1897 ...	51,611	1,883	1,028	369	2,839	78	48	6	90,098	2,727	1,655	462	7,763	No Record.				9,866	165	51
1898 ...	52,447	1,776	1,058	330	2,860	59	33	4	91,662	2,717	1,479	435	8,483	No Record.				10,340	150	48
1899 ...	53,137	2,064	1,145	349	2,860	70	41	4	93,221	2,763	1,669	448	9,270	No Record.				10,836	182	54
1900 ...	62,870	2,124	1,241	439	3,746	80	59	9	95,925	2,741	1,833	464	10,131	No Record.				11,356	228	76
1901 ...	65,126	2,179	1,210	426	3,682	109	64	17	97,673	2,803	1,694	465	11,036	No Record.				11,902	216	70
Averages of Years 1892 to 1901	52,978	1,841	1,011	329	2,978	75	44	8	89,654	2,690	1,583	437	7,666	No Record.				9,725	156	47
1902 ...	67,187	2,231	1,065	311	3,787	125	39	7	99,291	2,915	1,443	363	12,071	415	172	51	12,702	462	191	57

* Districts added to the City, October 31st, 1901.

TABLE B.—Cases of Infectious Disease notified during the year 1902.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN THE WHOLE CITY.						TOTAL CASES NOTIFIED IN EACH REGISTRATION SUB-DISTRICT.									NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH REGISTRATION SUB-DISTRICT.											
	At all Ages.	At Ages—YEARS.					NORTH.	SOUTH.	PARK.	BRIGHTSIDE.	ATTERCLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLESALL.	NORTON.	HILLSBORO'.	NORTH.	SOUTH.	PARK.	BRIGHTSIDE.	ATTERCLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLESALL.	NORTON.	HILLSBORO'.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.																					65 and upwards
Small Pox ...	38	...	1	4	7	26	...	16	3	...	17	...	1	...	...	...	16	3	...	17	...	1	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Group ...	969	12	283	430	126	117	1	154	27	55	225	73	127	10	266	25	7	52	16	18	89	15	39	2	76	4	2
Erysipelas ...	391	27	14	22	51	241	36	39	37	17	90	36	39	1	112	16	4	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	1,601	15	429	937	145	74	1	131	70	53	259	239	387	7	395	28	32	53	46	27	113	108	162	4	182	10	13
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	373	1	38	111	88	134	1	77	26	36	69	45	38	3	70	4	5	48	18	20	30	23	21	1	29	1	1
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	37	...	...	...	12	25	...	1	1	2	10	9	9	...	3	1	1	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS...	3,410	55	766	1,504	429	617	39	418	164	163	671	402	601	21	847	74	49	169	83	65	249	146	223	7	288	15	16

